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HORTICULTURIST

AND

JOURNAL OF RURAL ART AND RURAL TASTE.

DEVOTED TO

HORTICULTURE, LANDSCAPE GARDENING, RURAL ARCHITECTURE, BOTANY,
POMOLOGY, ENTOMOLOGY, RURAL ECONOMY, &c.

EDITED BY A. J. DOWNING,

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OF AMERICA," ETC. ETC.

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JOURNAL OF RURAL ART AND RURAL TASTE.

VOL. III.

JULY, 1848.

No. 1.

ONE of the most striking proofs of the progress of refinement, in the United States, is the rapid increase of taste for ornamental gardening and rural embellishment in all the older portions of the northern and middle states.

It cannot be denied, that the tasteful improvement of a country residence is both one of the most agreeable and the most natural recreations that can occupy a cultivated mind. With all the interest, and, to many, all the excitement of the more seductive amusements of society, it has the incalculable advantage of fostering only the purest feelings, and, (unlike many other occupations of business men,) refining, instead of hardening the heart.

The great German poet, GOETHE, says—

“Happy the man who hath escaped the town,
Him did an angel bless when he was born.”

This apostrophe was addressed to the devotee of country life as a member of a *class*, in the old world, where men, for the most part, are confined to certain walks of life by the limits of caste, to a degree totally unknown in this country.

With us, country life is a leading object of nearly all men's desires. The wealthiest merchant looks upon his country seat as the best ultimatum of his laborious

days in the counting-house. The most indefatigable statesman dates, in his retirement, from his “Ashland,” or his “Lindenwold.” WEBSTER has his “Marshfield,” where his scientific agriculture is no less admirable than his profound eloquence in the Senate. TAYLOR's well ordered plantation is not less significant of the man, than the battle of Buena Vista. WASHINGTON IRVING's cottage, on the Hudson, is even more poetical than any chapter of his Sketch Book; and COLE, the greatest of our landscape painters, had his rural home under the very shadow of the Catskills.

This is well. In the United States, nature, and domestic life, are better than society, and the manners of towns. Hence all sensible men gladly escape, earlier or later, and partially or wholly, from the turmoil of the cities. Hence, the dignity and value of country life is every day augmenting. And hence the enjoyment of landscape or ornamental gardening—which, when in pure taste, may properly be called *a more refined kind of nature*,—is every day becoming more and more widely diffused.

Those who are not as conversant as ourselves with the statistics of horticulture and rural architecture, have no just idea of the rapid multiplication of pretty cottages

and villas in many parts of North America. The vast web of railroads which now interlaces the continent, though really built for the purposes of trade, cannot wholly escape doing some duty for the Beautiful as well as the useful. Hundreds and thousands, formerly obliged to live in the crowded streets of cities, now find themselves able to enjoy a country cottage, several miles distant,—the old notions of time and space being half annihilated; and these suburban cottages enable the busy citizen to breathe freely, and keep alive his love for nature, till the time shall come when he shall have wrung out of the nervous hand of commerce enough means to enable him to realize his ideal of the “retired life” of an American landed proprietor.

The number of our country residences which are laid out, and kept at a high point of ornamental gardening, is certainly not very large, though it is continually increasing. But we have no hesitation in saying that the aggregate sum annually expended in this way for the last five years, in North America, is not exceeded in any country in the world save one.

England ranks before all other countries in the perfection of its landscape gardening; and enormous, almost incredible sums have been expended by her wealthier class upon their rural improvements. But the taste of England is, we have good reasons for believing, at its maximum; and the expenditure of the aristocracy is, of late, chiefly devoted to *keeping up* the existing style of their parks and pleasure grounds. In this country, it is quite surprising how rapid is the creation of new country residences, and how large is the aggregate amount continually expended in the construction of houses and grounds, of a character more or less ornamental.

Granting all this, it cannot be denied that there are also, in the United States, large sums of money—many millions of dollars—annually, most unwisely and injudiciously expended in these rural improvements. While we gladly admit that there has been a surprising and gratifying advance in taste within the last ten years, we are also forced to confess that there are countless specimens of *bad taste*, and hundreds of examples where a more agreeable and satisfactory result *might have been attained at one-half the cost*.

Is it not, therefore, worth while to inquire a little more definitely what are the obstacles that lie in the way of forming satisfactory, tasteful and agreeable country residences?

The common reply to this question, when directly put in the face of any signal example of failure, is—“Oh, Mr. — is a man of no *taste*!” There is, undoubtedly, often but too much truth in this clean cut at the *æsthetic* capacities of the unlucky improver. But it by no means follows that it is always true. A man may have taste, and yet, if he trusts to his own powers of direction, signally fail in tasteful improvements.

We should say that two grand errors are the fertile causes of all the failures in the rural improvements of the United States at the present moment.

The first error lies in supposing that good taste is a natural gift, which springs heaven-born into perfect existence—needing no cultivation or improvement. The second is in supposing that taste alone is sufficient to the production of extensive or complete works in architecture or landscape gardening.

A lively *sensibility to the Beautiful*, is a natural faculty, mistaken by more than half the world for good taste itself. But good taste, in the true meaning of the term,

or, more strictly, correct taste, only exists where sensibility to the Beautiful, and good judgment, are combined in the same mind. Thus, a person may have a delicate organization, which will enable him to receive pleasure from every thing that possesses grace or beauty, but with it so little power of discrimination as to be unable to select among many pleasing objects, those which, under given circumstances, are the most beautiful, harmonious, or fitting. Such a person may be said to have natural sensibility, or fine perceptions, but not good taste; the latter belongs properly to one who, among many beautiful objects, rapidly compares, discriminates, and gives due rank to each, according to its merit.

Now, although that delicacy of organization, usually called taste, is a natural gift, which can no more be acquired than hearing can be by a deaf man, yet, in most persons, this sensibility to the Beautiful may be cultivated and ripened into good taste by the study and comparison of beautiful productions in nature and art.

This is precisely what we wish to insist upon, to all persons about to commence rural embellishments, who have not a cultivated or just taste; but only sensibility, or what they would call a natural taste.

Three-fourths of all the building and ornamental gardening of America, hitherto, have been *amateur* performances—often the productions of persons who, with abundant natural sensibility, have taken no pains to cultivate it and form a correct, or even a good taste, by studying and comparing the best examples already in existence in various parts of this or other countries. Now the study of the best productions in the fine arts is not more necessary to the success of the young painter and sculptor than that of buildings and grounds to the amateur or professional improver,

who desires to improve a country residence well and tastefully. In both cases comparison, discrimination, the use of the reasoning faculty, educate the natural delicacy of perception into a taste, more or less just and perfect, and enable it not only to arrive at Beauty, but to select the most beautiful for the end in view.

There are at the present moment, without going abroad, opportunities of cultivating a taste in landscape-gardening, quite sufficient to enable any one of natural sensibility to the Beautiful, combined with good reasoning powers, to arrive at that point which may be considered good taste. There are, indeed, few persons who are aware how instructive and interesting to an amateur, a visit to all the *finest* country residences of the older states, would be at the present moment. The study of books on taste is by no means to be neglected by the novice in rural embellishment; but the practical illustrations of different styles and principles, to be found in the best cottage and villa residences, are far more convincing and instructive, to most minds, than lessons taught in any other mode whatever.

We shall not, therefore, hesitate to commend a few of the most interesting places to the study of the tasteful improver. By the expenditure of the necessary time and money to examine and compare thoroughly such places, he will undoubtedly save himself much unnecessary outlay; he will be able to seize and develop many beauties which would otherwise be overlooked; and, most of all, he will be able to avoid the exhibition of that crude and uncultivated taste, which characterises the attempts of the majority of beginners,—who rather know how to *enjoy* beautiful grounds than how to go to work to *produce* them.

For that species of suburban cottage or villa residence which is most frequently

within the reach of persons of moderate fortunes, the environs of Boston afford the finest examples in the Union. Averaging from five to twenty acres, they are usually laid out with taste, are well planted with a large variety of trees and shrubs, and, above all, are exquisitely kept. As a cottage ornée, there are few places in America more perfect than the grounds of Col. PERKINS, or of THOS. LEE, Esq., at Brookline, near Boston. The latter is especially remarkable for the beauty of the lawn, and the successful management of rare trees and shrubs, and is a most excellent study for the suburban landscape-gardener. There are many other places in that neighborhood abounding with interest; but the great feature of the gardens of Boston lies rather in their horticultural than their artistical merit. In forcing and skillful cultivation, they still rank before any other part of the country. Mr. CUSHING's residence, near Watertown, has long been celebrated in this respect.

An amateur who wishes to study trees, should visit the fine old places in the neighborhood of Philadelphia. A couple of days spent at the *Bartram Garden*, the *Hamilton Place*, and many of the old estates bordering the Schuylkill, will make him familiar with rare and fine trees, such as *Salisburias*, *Magnolias*, *Virgilias*, etc., of a size and beauty of growth that will not only fill him with astonishment, but convince him what effects may be produced by planting. As a specimen of a cottage residence of the first class, exquisitely kept, there are also few examples in America more perfect than Mrs. CAMAC's grounds, four or five miles from Philadelphia.

For landscape gardening, on a large scale, and in its best sense, there are no places in America which compare with those on the east bank of the Hudson,

between Hyde Park and the town of Hudson. The extent of the grounds, and their fine natural advantages of wood and lawn, combined with their grand and beautiful views, and the admirable manner in which these natural charms are heightened by art, place them far before any other residences in the United States in picturesque beauty. In a strictly *horticultural* sense, they are, perhaps, as much inferior to the best places about Boston as they are superior to them in the beauty of landscape gardening and picturesque effect.

Among these places, those which enjoy the highest reputation, are *Montgomery Place*, the seat of Mrs. EDW'D LIVINGSTON, *Blithewood*, the seat of R. DONALDSON, Esq., and *Hyde Park*, the seat of W. LANGDON, Esq. The first is remarkable for its extent, for the wonderful variety of scenery—wood, water, and gardenesque—which it embraces, and for the excellent general keeping of the grounds. The second is a fine illustration of great natural beauty—a mingling of the graceful and grand in scenery,—admirably treated and heightened by art. Hyde Park is almost too well known to need more than a passing notice. It is a noble site, greatly enhanced in interest lately, by the erection of a fine new mansion.

The student or amateur in landscape gardening, who wishes to examine two places as remarkable for breadth and dignity of effect as any in America, will not fail to go to the *Livingston Manor*, seven miles east of Hudson, and to *Reusselaerwyck*, a few miles above Albany, on the eastern shore. The former has the best kept and most extensive lawn in the Union; and the latter, with five or six miles of gravelled walks and drives, within its own boundaries, exhibits some of the cleverest illustrations of practical skill in

laying out grounds, that we remember to have seen.*

If no person, about to improve a country residence, would expend a dollar until he had visited and carefully studied, at least *twenty places* of the character of these which we have thus pointed out, we think the number of specimens of bad taste, or total want of taste, would be astonishingly diminished. We could point to half a dozen examples within our own knowledge, where ten days spent by their proprietors in examining what had already been done in some of the best specimens of building and gardening in the country, could not but have prevented their proprietors from making their places absolutely hideous, and throwing away ten, twenty, or thirty thousand dollars. Ignorance is *not* bliss, nor is it economy, in improving a country seat.

We think, also, there can scarcely be a question that an examination of the best examples of taste in rural improvement at home, is far more instructive to an American, than an inspection of the finest country places in Europe; and this, chiefly, because a really successful example at home is based upon republican modes of life, enjoyment, and expenditure,—which are almost the reverse of those of an aristocratic government. For the same reason, we think those places most instructive, and best worth general study in this country, which realize most completely our ideal of refined country life in America. To do this, it is by no means necessary to have baronial possessions, or a mansion of vast extent. No more should be attempted than can be done well, and in perfect harmony with our habits, mode of life, and domestic institu-

tions. Hence, smaller suburban residences, like those in the neighborhood of Boston, are, perhaps, better models, or studies for the public generally, than our grander and more extensive seats; mainly because they are more expressive of the means and character of the majority of those of our countrymen whose intelligence and refinement leads them to find their happiness in country life. It is better to attempt a small place, and attain perfect success, than to fail in one of greater extent.

Having pointed out what we consider indispensable to be done, to assist in forming, if possible, a correct taste in those who have only a natural delicacy of organization, which they miscall taste, we may also add that good taste, or even a perfect taste, is often by no means sufficient for the production of really *extensive* works in rural architecture or landscape-gardening.

"Taste," says *Cousin*, in his *Philosophy of the Beautiful*, "is a faculty indolent and passive; it reposes tranquilly in the contemplation of the Beautiful in Nature. *Genius* is proud and free; genius creates and reconstructs."

He, therefore, (whether as amateur or professor,) who hopes to be successful in the highest degree, in the arts of refined building or landscape-gardening, must possess not only *taste* to appreciate the Beautiful, but genius to produce it. Do we not often see persons who have for half their lives enjoyed a reputation for correct taste, suddenly lose it when they attempt to embody it in some practical manner? Such persons have only the "indolent and passive," and not the "free and creative faculty." Yet there are a thousand little offices of supervision and control, where the taste alone may be exercised with the happiest results upon a country place. It is by no means a small merit to prevent any violations of

* We should apologise for thus pointing out private places, did we not know that the liberal proprietors of those just named, are persons who take the liveliest interest in the progress of good taste, and will cheerfully allow their places to be examined by those who visit them with such motives as we here urge,—very different from idle curiosity.

good taste, if we cannot achieve any great work of genius. And we are happy to be able to say that we know many amateurs in this country who unite with a refined taste a creative genius, or practical ability to carry beautiful improvements into execution, which has already enriched the country with beautiful examples of rural residences; and we can congratulate ourselves that, along with other traits of the Anglo-Saxon mind, we have by no means failed in our inheritance of that fine appreciation of rural beauty,

and the power of developing it, which the English have so long possessed.

We hope the number of those who are able to enjoy this most refined kind of happiness will every day grow more numerous; and that it may do so, we are confident we can give no better advice than again to commend beginners, before they lay a corner stone, or plant a tree, to visit and study at least a dozen or twenty of the acknowledged best specimens of good taste in America.

THE PRESIDENT OF THE MASSACHUSETTS HORTICULTURAL SOCIETY.

[WITH A PORTRAIT.]

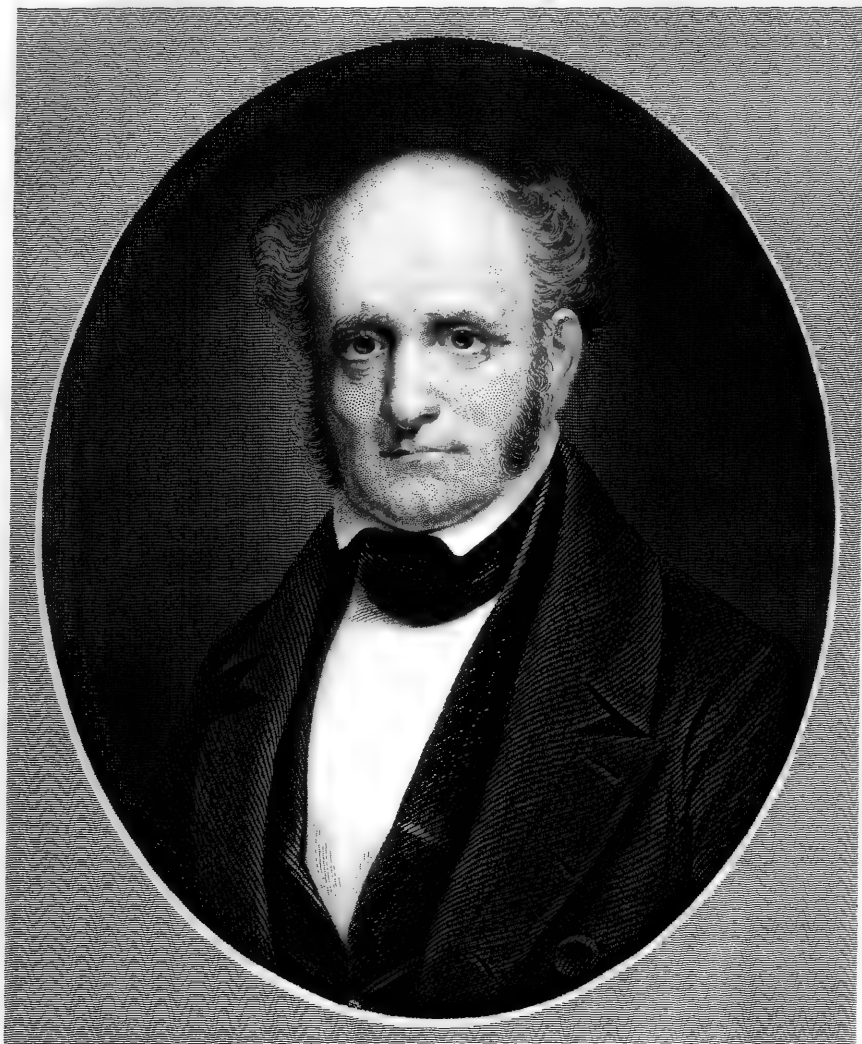
WE are enabled, in commencing our third volume, to give our readers, not only our usual frontispiece and engravings, but also a fine steel-plate portrait of MARSHALL P. WILDER, Esq., the well known President of the Massachusetts Horticultural Society.

For this plate, and the following memoir, we are under particular obligations to the liberality of J. S. SKINNER, Esq., editor of the *Farmers' Library*. It would have been gratifying to us to have been the *first medium* of making public some sketch of the labors of our esteemed friend and correspondent; but the *Farmers' Library* has taken the lead in holding up to public view the services of Americans who have distinguished themselves rather in the arts of peace than the arts of war.

Mr. SKINNER, agreeing with us, however, that a *horticultural* journal is the more appropriate channel for awarding honors to one of our most successful devotees of horticulture, has most generously consented to our making any use we please of the plate and memoir in question, which we accord-

ingly lay before our readers in the present number.

Every one knows the high rank which the Massachusetts Society has held for years past; and we hazard nothing in saying that, under all circumstances, this Society, composed as it is of many of the ablest horticulturists in the Commonwealth, has been especially fortunate of late years in its *presiding officer*. In this country, without any patronage from government, from wealthy corporations, or powerful patrons, great energy, unwearied perseverance, and much skill and tact, are necessary in its executive officers, to maintain the influence, meet the large expenses, and justify the expectations of the community regarding such institutions. All these qualities are found singularly united in the subject of the memoir to which we refer. His indomitable energy and large store of practical knowledge, are only equalled by the generous and unselfish manner in which he gives every possible moment to the duties of his position, and the cordial urbanity and



Marshall H. Hall, M.D.



frankness with which the inquiring stranger or the curious friend is met, who may visit the Hall of the Society, or the Garden of its President, for the purpose of learning the occult mysteries of the earhest of the arts.

Indeed, the Massachusetts Society, of late, has begun to exert an influence far more powerful than that of mere local societies devoted to the improvement of the arts of culture; and what, truly, may we not hope from its effect, when such men as ABBOTT LAWRENCE, are heard publicly to declare that even in the act of choosing a mechanic, he would go out of his way to find one who "had been seen on Saturday night taking home a *flower-pot under his arm*." The usual exhibitions of the Society, perhaps the largest, in a pomological point of view, in the world, are now visited by delegates and committees, as well as by great numbers of strangers, from all parts of the Union. The first desire for an orchard of fine fruit, the first yearning for a beautiful garden, have been awakened, while the beholder of some rudely cultivated farm has gazed on the paradise of perfect productions assembled at its September shows. Its weekly exhibitions are also frequently the elegant *reunions* of much of the intelligence, wit and beauty of the splendid metropolis of New-England, as well as of the working gardeners themselves.

The taste for flowers and fruits, and for all that is attractive in rural life, is thus begotten and diffused in all classes of society. The New-England character, which has already made its mark upon the age, by its energy, enterprise and thrift, will soon also be found laboring everywhere in the good work of making the wilderness to blossom as the rose. Not content with clearing forests, planting new states, and diffusing education as freely as the sun-

shine itself, it is easy to see that it also strives to be foremost in teaching the elegancies of life, especially in the knowledge and love of gardens, which we see in progress about Boston. Do we need a better and more elevated future, for the rural life of all America? May we, under her example, live to see our whole country, unrivalled as it is in natural advantages of soil and climate, overspread with smiling gardens and fruitful orchards—spells that bind men strongly to their homes—filled with the choicest productions of Flora and Pomona! and these, too, not held forever by a few great and privileged landlords, but the property of the numberless cultivators of the soil, a soil where truly every man may "sit under his own vine." Ed.

If there is any one class of citizens which deserves at the present moment especially the respect and admiration of their countrymen, it is, perhaps, the merchants of Boston.

To indomitable energy and enterprise, in acquiring wealth, they add a spirit of wisdom and philanthropy, and a faith in the progress of Man in the use of it, which at once does honor to the city in which they live, and raises the character of commercial pursuits more than all the honors of knight-hood.

It would be making too long a catalogue were we to enumerate even the most conspicuous public benefits which Massachusetts has derived from this intelligent and high-minded class of her sons. Numberless public charities have been founded and supported: public and free schools planned and sustained; lectures given to the public; new worlds of thought opened to the blind; the deaf and dumb brought into correspondence with their fellow men; poor artists sent abroad to develop their Heaven-bestowed talents; colleges richly endowed, and a great Scientific School opened cheaply to every citizen of the Commonwealth for instruction in sciences applicable to all the useful industries of life.

This, and much more, has been done by a liberal application of the wealth produced by their own industry, by the merchants of Boston. It would be a pleasing task to designate those who have thus most successfully proved that they understand the true uses and true obligations of wealth. But we are obliged at this moment to confine ourselves to a single illustration of the benefits which a merchant, engrossed with business, may confer on his countrymen, when actuated by this large spirit of usefulness to his race.

Pearl-street, in Boston, completely rebuilt within a few years, presents to the eye two continuous lines of fine warehouses—beautifully and fittingly built, in an appropriate architectural style, of neatly-dressed granite. Enter with us one of these stores at the beginning of the street; ascend into spacious apartments where on every side are seen boxes and bales filled with the productions of the active looms of New-England; pass thro' counting-rooms where various clerks poring over huge ledgers tell of a widely extended business; and finally penetrate to a third office. In this inner vestibule of the house of trade, sits, before a desk covered with a large correspondence, a merchant thoroughly devoted to his calling. In his countenance you see only the engrossing cares of commerce, and his ample brow, and clear penetrating eye are full of plans for the increase of cotton mills and American manufactured goods, of better quality, and lower price, than John Bull can possibly send into our market.

About four miles south of Boston is the town of Dorchester—one of those agreeable rural suburbs of Boston, which the sturdy city, now full of robust health, is fast overtaking and swallowing up with its vast commercial appetite. In a part of this town is situated a rural residence—well known as Hawthorn Grove. If we enter the gates of this simple and unpretending place, about sunrise or sunset, we shall find there not only grounds which are a complete museum of horticulture, full of every known variety of fruit tree; orchards well planted; and long, fruitful alleys: but, also, the same merchant we saw in the inner counting-room in Pearl-street. The same? yes! the same to the common observer,

doubtless; that is to say, the gentleman whose portrait illustrates this number of THE FARMERS' LIBRARY; but not now the busy, engrossed merchant—only the zealous enthusiastic *horticulturist*—the President of the Massachusetts Horticultural Society—the experienced pomologist—the importer of, and anxious seeker after all new fruits and plants; in short, MARSHALL P. WILDER—the subject of the present notice.

We are not about to write the life of Col. Wilder. We hope it may be many long years, filled, like the present, with usefulness, before he needs a biographer. It is our more agreeable task, at the present moment, to glance hastily upon the field of labors in which his name has become a public one, and in which it is especially interesting to the readers of this journal—as a horticulturist.

It is sufficient, then, to say that Colonel Wilder is a native of New-Hampshire, the Granite State, which boasts, not without reason, that "*men* are the fairest product of her soil." He was born in the town of Rindge, N. H., in September, 1798, where his devotion to his garden and to mercantile life awakened along with each other. For more than twenty years he has been one of the most industrious and successful merchants of Boston, and for sixteen years he has employed every moment of *forced* leisure—leisure borrowed, not from business, but from the ordinary relaxations of the business man, in carrying out his favorite study of horticulture.

In a city most conspicuous among all American cities for its horticultural amateurs, Col. Wilder has long been known as one of the most zealous and the most active devotees of this science. For eight years past he has been annually elected President of the Massachusetts Horticultural Society—first of all institutions of the kind in the Union for its large activity, intelligence, and usefulness. During his administration, the number of members and the funds of the society have been greatly increased, its new hall erected, at a cost of \$40,000, and a very richly illustrated series of its *Transactions* commenced.

But this is to us, and to the country at large, not the most important and valuable view of his great services as a scientific

cultivator of the soil. There are, perhaps, many men's grounds more attractive, or more captivating to the novice, than those of the President of the Horticultural Society. But we think we may safely say that no garden in America, either public or private, has been more fruitful in good experiences for the benefit of the art generally, and especially of pomology, than that of Hawthorn Grove.

Let us say a word or two to make this plainer to the general reader. Horticulture has been so much perfected in the last thirty years that it may be said to be not only a science of considerable breadth, but an art involving in its materials ten thousand details. In all parts of Europe and America, new fruits, plants, and trees, are continually brought into existence by the creative hand of the skillful gardener. Especially at one period, about fifteen years ago, did the Flemish cultivators astonish the world of fruit-growers with their catalogues of superlative new fruits. Now the natural vanity of some, and the natural ignorance of other cultivators, lead them to overrate the merits of many new varieties. Difference of soil and climate also renders a fruit of the highest value in one country of lesser or greater value in another. Behold, then, how important that some steps should be taken by which all this vast mass of accumulated material should be put into the crucible of knowledge from time to time, so that the pure gold should be separated from the dross, for the benefit of a whole community of men who have good orchards and gardens!

In other countries, societies or governments, with abundant means at their command, have undertaken this herculean task of collecting and proving new fruits and plants. But, in this country, no society has as yet been able, no one of the states willing, to prosecute this interesting and necessary series of experiments. But what the Horticultural Society of London has done for England in the way of fruits, or the *Jardin des Plantes* for France, in trees and plants, Col. Wilder has to a very considerable extent done for New-England, (and we may indeed say for the Union,) in his own private grounds at Hawthorn Grove.

To accomplish this object he has long pursued the following plan:

1st. Entering into active correspondence and maintaining standing orders with all the most eminent horticultural amateurs and nurserymen of foreign countries, and procuring at the earliest moment every new production worthy of note, abroad as well as at home. This has necessarily given his grounds, at all times, the aspect of a crowded museum of gardening novelties from all parts of the world, more attractive to the understanding of the connoisseur than to the eye of the tyro.

2d. Continually testing these new fruits and plants by putting them in proper sites and soils, keeping an accurate record of all results, exhibiting all his specimens before the public at the exhibition of the horticultural society, and freely distributing scions, plants or seeds, to other persons.

3d. Producing new varieties by the scientific process of hybridizing*—several of which have been great acquisitions to the country.

As an experimental pomologist, we are inclined to give the subject of this notice higher praise than in any other department. He has that faculty of *just discrimination* so rare among *enthusiastic* collectors, which enables him to *reject* and *publicly excommunicate* a really inferior variety after thoroughly testing it; even if it should come to him with the highest reputation from abroad. "Take nothing on trust—prove for yourself, and hold fast to that which is good;" such are the maxims which govern his experimental practice in his favorite art. We have indeed heard him remark to a friend, who expressed his surprise at his patience in collecting so many varieties of fruits, to find only so small a number really worthy of general cultivation, that such was his desire to get at the truth that "his satisfaction in ascertaining that a variety was poor (thus preventing its extensive dissemination) was nearly as great as in finding it worthy of general cultivation."

The pear has perhaps been Col. Wilder's favorite fruit, and he has been remarkably successful in its cultivation. Even upon

* A very able article on the curious and interesting subject of *hybridization*, from the pen of Col. Wilder, will be found in the 2d Part of the "Transactions of the Massachusetts Horticultural Society."

the quince stock some of his trees have borne a barrel in a season. He has exhibited one hundred and sixty varieties of this fruit at a single show of the Massachusetts Society, and his garden now contains more than *five hundred sorts* of pears from all parts of the world, either in bearing or under cultivation for proving their value for the American soil or climate.

Among exotic plants the *Camellia* was long ago his favorite. His collection at one time embraced nearly three hundred sorts, comprising every novelty extant. Applying, with his usual success, hybridization to this genus of plants, he has been successful in producing two new varieties of surpassing beauty—not excelled by the most perfect productions of Europe.

The Massachusetts Horticultural Society two years ago voted him a special prize of silver plate for those beautiful acquisitions to the domains of Flora.*

Col. Wilder's devotion to horticulture, his liberality in imparting information, however dearly bought, and in distributing seeds, plants, and scions to parts of the country where their value would be appreciated, or whence some excellent native production was offered in exchange, have made him known as a benefactor to those who live "amid gardens and green fields" in all parts of the Union.

We may remark, in conclusion, that it would be difficult to present to the contemplation of our readers an instance of an individual who so completely accomplishes all the laborious duties of a life of large mercantile pursuits, and yet who at the same time makes his few hours of leisure, each day, tell so emphatically for his own happiness, and the benefit of his fellow cultivators of the soil, in all parts of the country. It is only indeed by making horticulture the *great working pastime* of his life, that he has been able to accomplish so much. But can one hold up a better example to the emulation of those citizens who find nothing to do in the country, and no occupation

there, worthy of engaging their energies and their industriously accumulated fortunes?

For ourselves, we rejoice in the long-sought opportunity and means of presenting to our young readers, and to gentlemen of opulence and leisure, even this brief sketch of what has been done by a single citizen, to investigate the merits and perfect the properties of our flowers and fruits; much as it falls short of giving a full idea of his contributions to an elegant and intellectual pursuit—one that at once denotes, accelerates and adorns in all countries, the progress of civilization. Nor can the full measure of honor due to such citizens as Col. Wilder and his associates, for the strong lead they have taken, as well in the science as in the practice of horticulture, be properly estimated without making large allowance for the rigors of the climate with which they have had to contend. In more genial regions, Nature scatters profusely her beautiful creations, with open hand—without waiting for Art to assist, or Industry to serve her—while in the north, she yields them only, if not reluctantly, to the most skillful and assiduous importunities. But to these she does give them in such variety and richness, as none can appreciate who have not witnessed an exhibition of the society over which Col. Wilder presides. Well do we remember when, on our first entrance into Hawthorn Grove,

"The perfumed air
Gave another sense, its prelude rich
Of what the eye should feast."

Since that time, always—and we may say habitually—holding in high comparative estimation the beauty and the usefulness of lives and labors thus devoted to peaceful and meliorating pursuits, we have been anxious, in a sense of duty, and for the good of society, (least of all for his own sake,) to pay to the proprietor the very inadequate homage which here we render.

For the painting from which the engraving has been made, we are indebted to the artist, Mr. Marchant of this city, in whose collection it still remains—a true presentment of the estimable original, as far as Art can supply one. The engraving, as will be seen, is by Mr. Jackman, and does him credit as a worker in that, one of the finest among the fine arts.

* These two *Camellias* were named by the society, C. Wilder and C. Mrs. Wilder. We may give our farming readers some idea of the commercial value of new and rare plants, by remarking that the stock of these two varieties was purchased by a nurseryman for \$1,000, who immediately went to Europe, where, we learn, he disposed of them by subscription, at *ten guineas* the pair.

FURTHER NOTES ON THE STRAWBERRY QUESTION.

BY SENEX, NEW-YORK.

IN your last number you have some remarks from Dr. VALK upon the strawberry question, by which I find that the Doctor has misunderstood the tenor of the article from me, which you inserted in the Oct. number of the Horticulturist.

I wrote that article partly with the intention of suggesting what was really the cause of the sterility of the strawberry, and partly with the intention of drawing the attention of those who are debating the strawberry question, to the necessity of adhering closely to the strict meaning of the terms they used; for unless they did so, they would only make "confusion worse confounded." I am sorry that my remarks have not had the intended effect, especially as they have been misunderstood by a person of such knowledge and extensive reading as Dr. Valk, as his papers on vegetable physiology abundantly prove. I will now, trusting that my present writing may meet with a better reception, explain what appears to be wanting in my former article.

By the term *diœious*, all botanists understand plants having *naturally* the female organs on one plant and the male organs on another, and these are never under any circumstances found together in the same flower; by pistillate and staminate, (or fertile and sterile, as relates to seedbearing, which are the better terms,) are understood plants which having one of these organs in an imperfect state, or incapable of fulfilling its functions from any cause, the other is perfect; for instance, in the staminate strawberries the receptacle remains with the pistils upon it, but does not always produce fruit, as I believe, owing

to the plant, through improper soil or cultivation, not having strength to do so; sometimes the seeds are perfect, but the receptacle is small and deformed. Now, according to the theory lately started, if the seeds are perfect the receptacle must of necessity be so to: this, as I before said, I do not assent to. Again, in the pistillate flowers, the stamens, or rather filaments, are there, but without anthers; or if with anthers, they are without pollen. Yet I think instances enough could be given, (may have already been given,) of such flowers producing fine fruit without impregnation.

The *Wood Alpine* Strawberry has perfect flowers under all circumstances, at least, as far as has been observed, and always produces fruit; now if one of the genera *Fragaria* is hermaphrodite and others *diœious*, it should, according to the rules of botanical science, be a sufficient reason for making a new genera; and then Hovey's Seedling might, perhaps, stand as the type of a new genera, to be called "Hoveya." Would not this be an evident absurdity? I would ask Dr. VALK if ever he saw a staminate strawberry wanting the receptacle or pistils in either a more or less perfect state, or whether he ever saw a diœious plant in which the male flower had the least rudiments of the opposite sexual organs, or vice versa? Did he ever find a pistil or ovary, or the rudiments of one in the flower of a male willow, *Shepherdia*, *Hippophæ*, or poplar? That they are sometimes monœious I admit; but never hermaphrodite.

As to the genus *Clifortia*, I find, upon reference to *Lindley's Natural System*, that

he places it in the order Sanguisorbæ; and I cannot find, in any of Dr. Lindley's writings to which I have access, an instance where he refers a diœcious plant to the order Rosacææ. The quotation from Dr. LINDLEY, that "the old Hautbois Strawberry bears the male and female flowers on different roots," does not, with all deference to Dr. VALK, make him say that they are diœcious; and the other quotation from a letter to a correspondent in 1843, where he says—"those flowers which have the stamens *large* and the pistils *small* are males," etc. etc., prove that Dr. VALK does not understand Dr. LINDLEY aright. He never intended to say that the male flower of a monœcious or a diœcious plant had any pistils, or the rudiments of any; and Dr. VALK virtually concedes this point; for in classifying the strawberries, he speaks of many as *diœcious from abortion*.

I now come to speak of the use to be made of this strict adherence to the meaning of the terms used. If a plant is naturally diœcious, no art of the horticulturist *can, will, or ever* did make it to the contrary; and therefore all the evidence produced by Mr. TRACY, Mr. DOWNING, Mr. ALLEN and others, as to the changes in Hovey's Seedling, falls to the ground. We may transform the sexual organs of plants into petals or leaves, from which they are derived; but we cannot transform one sexual organ into another, or produce one where it is naturally wanting. It would be folly to attempt it,—the law of nature, in regard to this, appears to be so immutable; but we can by cultivation destroy in part, or altogether, the different sexual organs, and, per contra, when destroyed, we can, by a different course of treatment, restore them; and this is not only true of the sexual organs, but also of all other parts of a plant. I think, therefore, that cultiva-

tors should look more to their soils and cultivation to find out why their strawberries are unproductive; and the facts quoted by Dr. VALK go to prove this. Does not the fact, that Mr. TRACY had grown both staminate and pistillate Hovey's Seedling prove that cultivation produces a *great* change? If the original seedling was perfect, then cultivation has made it imperfect; if pistillate, then cultivation has, in some instances at least, brought the stamens from an imperfect to a perfect state: if this is denied, then comes the absurdity of having two Hovey's Seedlings from one seed. Mr. HOVEY formerly disbelieved this sexual organ theory, but lately changed his opinion, for which he chose an unfortunate time,—as I have heard it remarked that he did not do so until the *staminate* Boston Pine was ready to be sent out to fertilize the *pistillate* Hovey's Seedling!

I am still decidedly of the opinion that the impregnation of the ovaries, through the pistils, has nothing to do with the development of the receptacle, which, *under suitable cultivation, will perfect itself and become an edible fruit without any reference to the seeds being perfect or imperfect*.

My experience as a cultivator has long ago taught me this. Often have I carefully impregnated flowers in order to obtain seeds of choice plants, but not had a perfect seed, yet had otherwise perfect fruit. Who, as a pomologist or nurseryman, has not seen apples, pears, plums, peaches, and other fruits seedless? Are not the Sultana raisins of commerce seedless? Is not the seedless Berberry, seed-bearing on some soils? Is not the seedless Lemon well known to gardeners? Is there any one, at all conversant with vegetable physiology or metamorphosis, but must be able to call to mind very many instances of this kind. Hybrid Geraniums lose their anthers, which

appears to be produced by continual crossing, producing an imperfect state of the floral organs,—all being sacrificed to the size and colour of the flower. So with the strawberry; nearly all the hybrid kinds have had all other floral parts sacrificed to the size of the receptacle; and this monstrous development requires a strong rich soil to support it,—light, frothy soils, always rendering such strawberries unproductive. So of the Hautbois Strawberry, which, for a Wood Strawberry, has a large receptacle. In Herefordshire, in England, it produces enormous crops; but in other parts of England is almost worthless. Yet in this variety there is a tendency, in what are called the male flowers, to produce fruit, as they frequently have imperfect fruit but *perfect* seeds. The Pine Strawberry, grown in the neighborhood of Bath, Eng., is very

productive and fine; but the same plant, sent to other parts, are scarcely worth growing; and many similar instances can be named in this country.

This sexual organ theory is, I find, being applied to other fruits. A nurseryman here has been applied to for fruit bearing raspberries; and the White Antwerps he sells are said to be among the most prolific and finest to be obtained anywhere; yet in his own nursery he never had the pleasure of seeing a quart of perfect fruit from them,—the soil and situation being unsuitable. I think that strawberry growers will much further advance horticultural science by finding out by experiment and analyses the most suitable soil or manure for the plants, than in seeking their fruitfulness by such doubtful means as impregnation. SENEX.

New-York, June, 1843.

REMARKS ON HYBRIDIZING PLANTS.

[From the London Hort. Magazine.]

THE operation of hybridizing plants consists in fertilizing the stigma of the flower of one plant with the pollen of another, of different though allied characters. The effect of this, when the cross fecundation is actually effected, is to originate a new form, usually possessing properties and characters intermediate between its parents. Such a production is a mule or *hybrid* plant, and is to be regarded as a very different thing from what is understood as a *variety*.

In a practical point of view, this power of producing hybrid plants is one of the most important means which man possesses of modifying the vegetable races, and adapting them to his purposes. To it we owe some, indeed many, of our most beautiful garden flowers, as well as the most valuable of our fruits and vegetables, many of which have been so far improved—we use this word in a relative sense only—that further amelioration or improvement seems

hardly to be expected. Very little has been done in altering the characters and properties of our timber trees by this process, but there appears no reason to suppose that they would not admit of as much being effected as in the other classes of plants. Indeed, there is reason to believe that any property that may be possessed by plants of any class, or to which there is any tendency either inherent or manifest, may be modified to an almost unlimited extent by perseverance and assiduity in hybridizing.

It would not be desirable to enumerate all the changes which have been or may be effected by this process; it will be sufficient to notice a few of the most prominent. Among flowers the most important qualities which can be impressed on the different races are greater hardness of constitution, precocity or tardiness of flowering, the communication of odor where it is not possessed, increase in the size, alterations in the

form of individual flowers, or greater prolificacy, and improved arrangement, as regards their collective production. Modifications and blending of colour, which are also sometimes aimed at, seem to be the most paltry changes (in a general sense) of any that are attempted. These changes affect appearance; but among fruit and vegetables the changes to be effected should be confined more to productiveness and quality than to appearance. Thus the increase of size, together with the improvement or modification of the sensible qualities, are the main objects to be sought, followed by such qualities of general application as greater hardiness, precocity, tardity, or productiveness. In timber trees the production of greater bulk is the first object, and then the rendering of this bulk at least of equal, if not superior, strength, toughness, compactness, or whatever peculiar property individual kinds may be prized for.

It has been thought that a law very similar to that which obtains among animals also regulates the production and fertility of mule plants; and so far as observations have been made and recorded, this seems, as a general rule,* to be near the truth. Thus two distinct species of the same genus of plants will, in many cases, produce an intermediate offspring, perfect as far as regards the exercise of vital functions, but defective as regards the power of perpetuating itself by a seminal process. Even when in the first generation this sterility is not apparent, it becomes so in the second, and less commonly in the third or in the fourth generation. Such mules may, however, be rendered fertile by the application of the pollen of either parent, the characters of which then become assumed by the offspring; in other words, the hybrid form reverts to that of one of its parents. Plants, however, appear to possess this property of admitting of hybridization far more generally than animals; for while animal mules are comparatively rare, there is scarcely any family of plants that will not admit of being hybridized with due care and attention. It is, however, only between species in which the degree of relationship is some-

what close that this intercourse is effected; and as a rule, those plants which accord most fully in general structure and constitution will most readily admit of artificial union. Species that are very dissimilar appear to have some natural obstacle which prevents mutual fertilization, and this obstacle becomes insurmountable in the case of very different genera. No such thing as the intermixture of roses and black currants, and the consequent production of "black roses," of which we do sometimes hear, can therefore possibly take place. There are some few recorded instances of mules between different genera, but in these cases a certain degree of relationship existed, and the productions were both sickly and short-lived. Thus Gärtner is said to have obtained such hybrids, or *bigeners*, as they are termed, between *daturas* and henbane and tobacco, (all solanaceous plants,) and between the poppy and horn poppy, (both of the same natural order.) Weigman was successful in mixing lentils and vetches, (both leguminous.) Mr. Knight is recorded to have crossed the almond with the peach, (both rosaceous.) Kölreuter is recorded to have effected a similar union between different malvaceous plants; and Sageret obtained a cross between the cabbage and horseradish, which are both cruciferous plants. The Dean of Manchester, who has given much attention to the subject, and by far the best account of mule plants which has appeared, regards these and other like statements as erroneous, or at least doubtful, and supports this opinion by the fact that, in this country, where the passion for horticulture is very great, and the muling of plants has been carried to a great extent, there is no undoubted instance of a mule between distinct genera. On the other hand, there are many cases recorded of closely allied species refusing to intermix. Mr. Knight could not succeed in effecting a cross between the common and Morello cherries; and Dr. Lindley mentions his own vain endeavors to cross the gooseberry and the currant. Such plants as the apple and the pear, the raspberry and the blackberry, though very closely related, have not been known to intermix.

Wild hybrid varieties occur but seldom;

* Much of what may militate against this opinion may probably be referred to some defect in the present means and mode of constructing and distinguishing different genera.

at least, there are not many well-attested instances of their occurrence. Bentham ascertained that Lapeyrouse's *Saxifraga luteopurpurea*, and Decandolle's *S. ambigua*, are only wild accidental hybrids between *S. arenaria* and *calyciflora*, being only found where the two latter grow together, and there forming a suite of intermediate states between the two. Such genera as *Salix*, *Rosa*, *Rubus*, &c., are probably composed in a great measure of wild hybrids. Gentians have been remarked on European mountains, which have had such an origin. Bentham also mentions *Cistus longifolius* as being a hybrid between *C. monspessulanus* and *populifolius*, in the woods of Fontfroide, near Narbonne; and *Cistus Ledon* is constantly being produced between *C. monspessulanus* and *laurifolius*. It is the tendency of hybrid plants, when they produce seeds, to revert to their parent forms, that renders wild hybrids so rarely met with. Herbert, however, mentions the following genera as having produced spontaneous hybrids:—*Ranunculus*, *Anemone*, *Hypericum*, *Scleranthus*, *Drosera*, *Potentilla*, *Geum*, *Medicago*, *Galium*, *Centaurea*, *Stachys*, *Rhinanthus*, *Digitalis*, *Verbascum*, *Gentiana*, *Mentha*, *Quercus*, *Salix*, *Narcissus*, and *Crinum*. These names appear to be quoted by Herbert on the authority of Schiede.

Hybrids obtained by fertilizing the pistil of *one species* by the pollen of *another species*, are considered as true *mules* or *hybrids*; the result of intermixing two *varieties* of the *same species* is called a *crossbred*. It was held that the former was sterile, and incapable of yielding seed; whilst the others, on the contrary, usually produced fertile seed, which shortly reverted to one or other of the parents, unless again influenced by further hybridization. This opinion, however, that all vegetable hybrids are sterile, is not found to be tenable, though it is the case to a certain extent. The cause of this sterility is very doubtful; it has been referred to a want of pollen, but this explanation is unsatisfactory, inasmuch as no appreciable difference of structure in this respect has been detected in those cases which have been made the subject of especial inquiry. Crossbred varieties may certainly be hybridized, but there is in them

a strong tendency to revert to one of the parents. The progeny of varieties of the same species is in all cases as fertile as the parents.

Referring to the botanical questions which the hybridizing of plants involves, and relying on numerous well ascertained facts in support of his views, Dr. Herbert considers that genera are the only really natural divisions among plants, the species and varieties of which have all sprung originally from one type; and that, therefore, there is no difference except in degree—that is, no absolute difference between what are called species and varieties. He further considers that no plants which interbreed can, according to this view, belong to distinct genera, and that any arrangement which separates such plants must be revised; that discrimination between species and permanent varieties of plants is artificial, capricious, and insignificant; and, consequently, that the question often raised, whether a wild plant is a new species or a variety of a known species, is a waste of intellect upon a point which does not admit of precise definition.

The fertilization of plants is supposed to be effected by the emission of tubes of extreme tenuity from the grains of pollen when applied to the stigma; these tubes pass down the style into the ovary, and eventually reach the young ovules, which without this contact are unfertile. The operation, so far as it can be aided by the hybridizer, consists simply in applying the pollen of one plant (which becomes the male parent) to the stigma of the other (which becomes the female parent.) But there are certain conditions which are necessary to fertilization. The flower whose stigma is to be fertilized is to be deprived of its own anthers (if it is an hermaphrodite flower) before they burst and discharge their pollen, for in this case it would probably be self-impregnated, and then there would be little chance of success, for superfœtation, though not held to be impossible in plants any more than in animals, is equally an exception to the general rule, and therefore not likely to occur. The pollen must also be applied at the precise time when the stigma is perfectly developed and covered with its natural mucus, for

otherwise it will not act; in other words, if the stigma is too young or too old, the application will be ineffectual. The stigma to which the pollen has been applied must be guarded from injury until after fertilization has taken place, or the application will be ineffectual. The time which transpires before this is secured varies in different plants; in some it is very slow, occupying a month and upwards. For the same reason, after the pollen has been applied, the pistils should be secured as far as possible from any chance of contact with other pollen, either by the agency of wind or insects, and especially should they be secured from being influenced by the pollen of their own species, for this is probably much more ready in its action than that obtained from a strange plant. A very interesting fact connected with pollen has not until latterly been fully proved; we allude to its property of keeping, without losing its peculiar vivifying powers, if stored in a proper manner. The principal conditions seem to be to keep it dry and cool by whatever means may be preferred.

M. Haquin, a distinguished horticulturist at Liege, has impregnated flowers of *Azalea* with pollen kept for six weeks, and *Camelias* with pollen kept sixty-five days; and he even thinks that it would be quite effective if preserved until the following year, which supposition is confirmed by the experience of Mr. Jackson, a nurseryman in Yorkshire, who has found the pollen of a variety of *Rhododendron Smithii* to retain its fertilizing power for twelve months. Haquin's plan of preserving pollen is to gather the stamens just before the anther cells burst, and wrap them in writing paper, and place them in a dry room; he then collects the pollen they emit, and preserves it in sheet lead in a cool dry place. M. Godefroy suggests that two concave glasses, like those employed for keeping vaccine matter in, would be better. The globules or granules of pollen must not be crushed. This is, indeed, a most valuable fact connected with the subject before us, for upon a proper selection of pollen very much of success depends, and a store of this can therefore be laid by whenever it is procurable, ready for use as soon as an opportunity offers. Unless this were the case, the means

of improvement would be very limited, for it often happens that the two kinds which it may be desired to intermix are not in flower at the same time, or at least not in the requisite degree of development.

In raising and blooming seedling plants in this way, there is one point which it appears to be of importance to keep in view, and that is, that whether it be flowers or fruit, the real properties and qualities of the seedling are not at first to be detected, and therefore no hasty conclusion should be arrived at as to its merits. A very remarkable case, illustrative of this point, is on record:—when the late Mr. Knight raised the Black Heart Cherry, part of its first produce was sent to the Horticultural Society, and was considered so bad, that had not the tree been called the property of one of his children, (who sowed the seed,) it would have been cut in, and worked with something else; the after produce of this tree was of better quality, and the variety is now known as one of the richest of its class. This case appears to me to be decisive.

It may also be worth while to mention, that as no visible alteration in the appearance of the seed vessels results from impregnation by another, this want of change is not to be considered as being conclusive of failure. Whether or not impregnation has been effected, is easily determined; for when this has taken place the stigmas soon wither, while those which have not received the pollen remain green and vigorous for a much longer time, varying of course with the duration of the particular flower. A change is generally to be noticed first in the petals, as in the case of the *Pelargonium*, in which they usually fall within three or four hours after impregnation, affording a convincing proof of the operation being successful.

It may be interesting to notice a few of the recorded instances in which definite results have been obtained. One of them is the case of some *Fuchsias* raised by Mr. Standish, of Bagshot, who crossed *corymbiflora* with some other kind, as *globosa*, and obtained but very moderate success in the first generation; these crosses were, however, again crossed with one of the parents, (we believe *globosa*), and this result was some of the best varieties of

Fuchsia which had then been raised. Mr. Knight impregnated blooms of a degenerate sort of pea with the pollen of a large and luxuriant grey pea; the seeds exhibited no perceptible difference from those of the other plants of the same variety, perhaps because the external covering of the seed was entirely furnished by the female; but in the spring the effect was obvious, for they grew with great luxuriance, and produced dark grey seeds. By impregnating this variety with others, the colour was again changed, and superior ones produced. In these experiments, when the pollen of a coloured blossom was introduced into a white one, all the seeds were coloured, but the opposite was not the case when the pollen of a white blossom was introduced to a coloured one. Lord Carnarvon obtained a mule *Rhododendron* by fertilizing *R. catawbiense* with *R. arboreum*. In this case the mule had the flowers and colour of the latter, and the foliage and hardness of the former. M. Galesio procured more certainly double flowers by crossing those which were half double by others in a similar state. M. Fries Morel found crossed clove pinks to resemble the mother plant in form and the father plant in colour. The Dean of Manchester found that in crossing lilies, the plants produced resembled the mother plant in their leaves and stems, and the father plant in all their reproductive organs; this agrees remarkably with the result in the case of Lord Carnarvon's *Rhododendron*. Some very remarkable hybrid Azaleas were obtained by the Dean of Manchester from *Rhododendron ponticum* fertilized by *Azalea pontica*. In this case there was little trace of the *Rhododendron* in the seedling, except in the tinting of the flowers, and to a certain extent in their arrangement: the evergreen habit of the female parent was totally obliterated. He also got a seedling between *Rhodora canadensis* fertilized by the *Azalea pontica*; in this case the hybrid partook decidedly of the foliage, wood, and habit of the *Rhodora*, its female parent, and in the flowers, which were of a yellowish colour, it followed the male parent. Many other crosses were made by the same distinguished botanist between *Rhododendrons* and Azaleas, and always with similar results; and it was

on the evidence of these experiments of Mr. Herbert's that the genera *Rhododendron*, *Azalea*, and *Rhodora* have been amalgamated.

Captain Thurtell found that in cross-bred *Pelargoniums* the colour and spotting resembled the male parent, while the form approached more closely to that of the female. In the case of *Gloxinias* it has been remarked that in all cases when *G. rubra* has been fertilized with *G. speciosa*, or any of its varieties, the result has uniformly been a degeneracy in the colour of the varieties; the few which have been produced possessing any merit in this respect, have been obtained by crossing with *G. candida*.

The mode in which colours act in hybrid crosses is singular. When the bright yellow flower of the white turnip is crossed with the dull golden of the Swede, an intermediate colour is not obtained, but some of the mules as to colour follow one parent, and some the other. When a blue *Anagallis* is crossed with the orange-coloured, the effect is to discharge the yellow from the orange, leaving the dull red which was combined with it, whilst the blue is obliterated. In Mr. Herbert's *Rhododendro-Azaleas*, the purple of one parent, and the yellow of another, was succeeded in the mules by whitish flowers, more or less tinted with rose, and with a yellow blotch on the upper segment. Usually, however, it is most influenced by the male parent.

In the absence of better evidence than we possess on this subject, we think it may be assumed—

1st. That the characters of the male parent become more fully developed in the flowers and parts of fructification in the progeny, than those of the female.

2d. That the characters and general constitution and foliage of the female are to a great extent transferred to the progeny.

From these deductions, and other considerations we may venture to draw the following inferences, being fully aware, however, that the evidence is on some points conflicting, and even contradictory:

Colour in flowers* seems generally to be most influenced by the male parent.

Form in flowers apparently more closely

* A cross between a rose or byblomen tulip, and a bizarre, is said usually to produce "tricolors," which are not prized.

follows that of the female parent (this at least has been observed in the *Pelargonium*.)

Size and robustness are communicated by either parent.

In seeds the colour of those of the male parent predominates.

In some cases the intended female flowers should be much less advanced than the other; the *Calceolaria* is an instance. Other plants, as the *Pelargonium*, require to be more advanced. The moment is to be seized when the stigma of one flower, and the pollen of the other, are in perfection.

Flowers intended to be crossed should be secured against the intrusion of insects *before* they become developed, and this protection must be continued till *after* there is evidence of impregnation being effected.

It is not requisite, as often stated, that the flowers on both parent plants should be as nearly as possible in the same stage of advancement; it has been ascertained that pollen may be kept for any reasonable period, and when there is a store of pollen it is only necessary that the stigma should be properly developed—that is, fresh, and covered with its mucous secretion.

The anthers from the intended female flower should be removed *before* they are enough advanced to have burst their pollen cells, so that the pollen may not escape on to the stigma; a very small portion indeed of the natural pollen being sufficient to set aside any experiment.

A considerable quantity of the applied pollen should be used, it being less active than the natural pollen of the plant.

There must be a near resemblance, an accordance in general structure and affinity, between the plants to be crossed. Some are more difficult to cross than others, probably from the tubes of the pollen grains being too large to pass down to the ovary through the pistils.

It is not to be expected that every instance of attempting to impregnate flowers will be successful.

The number of fertile seeds is usually smaller in cases of crossing, than is natural to the particular kinds of plants.

Crossed plants being often less fertile, sometimes even sterile, are in the same pro-

portion more luxuriant, and produce larger flowers.

Mule plants—that is, crosses between different species of the same genus, are usually either sterile, or become so in the second, third, or very rarely in the fourth generation. They may be fertilized by applying the pollen of either parent, and in that case assume the character of the parent by which the pollen was supplied.

The fertility of a hybrid seems to depend more upon the constitutional, than the botanical affinities of the parents; thus, Mr. Herbert found that *Crinum capense*, an aquatic, or swamp plant, impregnated either by *C. zeylanicum*, or *C. scabrum*, which affect drier habitats, produced offspring which during sixteen years proved sterile, while the same species impregnated by *C. pedunculatum*, *C. canaliculatum*, or *C. defixum*—all swamp plants, produced a fertile cross.

There is usually a greater probability of success with plants that have been accelerated by slight forcing, because there is less risk of the plants being fertilized by the accidental escape of the natural pollen.

Mr. Herbert found that in crossing some brilliant coloured flowers with others less showy, the seedlings produced flowers nearer the duller colour. This he attributes to (as he supposes) the climate being more congenial to the duller coloured parent; and he suggests that it would probably not take place in a climate more perfectly congenial to the more brilliant coloured parent.

Some of the best double-flowered hybrids—as of *Camellia* for example—have been obtained from single varieties impregnated by pollen from partly double flowers; that which is borne on a petal, or, in other words, on a petaloid filament, is to be preferred. Probably Indian *Azaleas*, in which they usually abound, might be obtained double in this manner. It is, no doubt, also important that the parent plants should be in a floriferous rather than a vigorous growing condition, if fine double flowers are desired. Pollen cannot always, though it may sometimes, be obtained from double flowers. Dr. Herbert observed a very curious morphological fact in the case of the

myrtle-leaved *Camellia*, which for twenty-five years he had never seen to bear an anther except in one season, when all the flowers on every plant had them; but the seedlings by this pollen proved the worst he ever raised; he concluded from this, that the same peculiarity in the season, which induced the approach to a single flower, also disposed the pollen to generate single flowers.

After all, the results which are obtained

will frequently vary greatly from what are supposed to be the general rules which influence this question, affording thereby a certain proof that they are far from perfect. It is to be hoped that spirited horticulturists will turn more of their attention to this subject, and institute experiments upon a methodical and systematic plan, for so only can we hope to have the errors of our opinions and practice removed, and their place supplied by undoubted truth.

ANOTHER SUCCESSFUL MODE OF GROWING GOOSEBERRIES.

BY R. H. T., DELAWARE.

In an early number of the *Horticulturist*, I observed a notice of a successful mode of cultivating the gooseberry, in soils and locations where the *mildew* prevails so as to render it difficult or impossible to get good crops of this fruit.

The difficulty in growing the gooseberry, in this part of the Union, is, I suppose, wholly attributable to the want of a cool and moist atmosphere in the spring and early summer months. The bushes grow vigorously, and they also blossom and set fine crops of fruit; but the latter become covered with a thick brown mildew, or scurf, when they are scarcely a quarter grown. This, manuring and high cultivation will not in many cases remove; and, accordingly, we must look somewhere else for the remedy.

What induces me to believe that it is the hot and dry climate here which makes it difficult to grow the gooseberry, is the following observation which I made last season. I took a journey through Maine and New-Brunswick, and it chanced to be in the gooseberry season. I there found, to my surprise, that wherever the culture of the gooseberry was attempted it produced fine abundant crops of clean fruit. The

mildew was wholly unknown, and I have never, (except in Great Britain,) seen such fine and large berries as I then saw in several private gardens in Maine.

Attributing the easy cultivation of the gooseberry there, as I have already mentioned, to the cool and comparatively humid climate of that state, it occurred to me that if we would succeed in growing this fruit in our gardens farther south, we must endeavor to bring about, as far as possible, the proper condition of the soil and site for its growth. As I was about to make a trial, I chanced to see the remarks of "A Jerseyman," in your journal, in which he so strongly recommends the use of a layer of salt hay underneath the branches. This appeared a good hint; its beneficial operation, as far as I am able to understand it, arising from the cool and moist temperature at which the earth about the roots was maintained,—thereby preventing that sudden check of growth which induces mildew.

Not having "salt hay" at hand, I cast about me for some substitute. This I found in the shape of a large heap of *sea-weed*, which had been brought up from the sea shore. I spread a layer of this *sea-weed*

underneath all my gooseberry plants to the depth of six inches, and in some cases to the depth of a foot. In the latter instances it had to be crowded down to make room for the branches; and, when the rains caused it to settle, it lay almost close to the branches. Of course, all this was done after pruning the gooseberry bushes, and before the fruit had yet attained sufficient size to be attacked by the mildew.

The experiment has proved quite successful. This year, for the first time in my remembrance, I have a very fine crop of large clean gooseberries, now nearly full grown, and not the least symptom of mildew. Those plants are most thrifty, and

have the finest fruit, which had the seaweed put in *thick layers* under them, so that the branches, in fact, rest upon the seaweed. The fruit is then kept quite cool, and the dew remains a long time in the day. In consequence of this, the roots do not feel the changes of temperature, and the growth and swelling of the berry is not checked.

If this reasoning is correct, persons in the interior need not be at a loss, for refuse hay or straw would probably answer the purpose. On the prairie, where hay is so abundant, it may be freely used for this purpose. Respectfully. R. H. T.

Delaware, July, 1848.

TWO INSECTS THAT INFEST THE NATIVE GRAPES.

BY C., NEW-YORK.

DEAR SIR—Every few years there appears some new insect enemy to the cultivator, that requires all his ingenuity and vigilance to prevent its destroying all the value of his labors. Little by little these pests spread over the whole country; their progress often being aided rather than prevented by careless cultivators, who allow them to have quiet and undisturbed possession of the garden or orchard under their care.

Two sorts of insects, that have made their appearance during the last two seasons on the hardy grapes—Isabella, Catawba, &c., now so generally cultivated in various parts of the country, come under this head of nuisances.

I am not familiar with the scientific names of these insects. They are, however, easily recognized by a brief description. One—the most troublesome—is, I think, a large sort of *thrip* or *aphis*, some-

what resembling the common aphid, or *green fly* of the rose bushes, but a great deal larger, and of a pale ash or grey-green colour. This insect is found on the under sides of the foliage, where it multiplies rapidly, and soon peoples the whole vine. Its effects are quickly perceived on the *foliage*, which puts on a gray, mottled and dingy colour,—its juices being sucked up by this species of thrip.

Vegetable physiologists would tell us beforehand that this robbery of the juices and green colouring matter of the leaf must impair the health and vigor of the vine. And plain gardeners that have had to do with this new insect, can testify from their own observation how much it impairs the health of the grape vine, and lessens the size and flavor of its fruit.

The other insect enemy is a species of small *black slug*, that also makes its appearance on the under side of the vine

leaves. If left in undisturbed possession, it devours the foliage almost as rapidly as the caterpillar. War must, in consequence, be declared against this slug immediately.

I am very much gratified, at the same time that I describe the new marauders, to be able also to say what sort of a dose they require to send them to the undertakers. By a little experiment, I have found that *tobacco water* is the best poison for them both, putting thrip and slug alike out of the way as soon as it reaches them.

The best mode of applying it is with a small syringe having a *rose* like a watering pot, or a small hand engine, such as is described in your last number. With this, and a pail of tobacco water at hand, a man can in a few moments thoroughly sprinkle the foliage of a large vine; always taking a stand so as to throw the shower on the under part of the leaves.

I find that strong soap-suds, applied in the same way, will kill the slug but not the thrip. It is best, therefore, when both

insects are found together, to use the tobacco water, which quickly sickens and kills almost every insect. In fact, so useful is this latter stuff, that a garden should never be without it in the growing season. A quart of it, and two minutes' labor to apply it, will sometimes prevent the generation of a great brood of insects that days only will subdue. In the towns, the tobacco-conists always have a supply on hand; and, at any rate, tobacco stalks can be procured and boiled in water till a strong decoction is made. As both the tobacco water of the manufacturers and decoctions made at home vary in strength, it is always best, before applying it largely, to make the experiment by mixing it with water, and applying it to a few leaves—two or three dilutions. That mixture which is only just strong enough to kill the insects is the best. To use tobacco water stronger than this is only throwing away your ammunition, and might check or injure the growth of the vine. Your truly. C.

New-York, June 16, 1848.

THE RED DIAPER PLUM.

WE find this valuable plum so little disseminated throughout the country generally, compared with many inferior varieties, like the *Orleans*, *Purple Magnum Bonum*, etc., that we are induced again to speak of its excellence.

This variety was received by us from England, under the name of the *Mimms* plum. The London Horticultural Society have, however, stated that the *Mimms* is synonymous with a French variety, previously known on the continent as the *Diaprée Rouge*, or *Red Diaper*; and the English title has, accordingly, given place to that by which it was first called. As we

are not aware that the *Diaprée Rouge* of the continental nurseries, (which is scarcely considered a first rate variety,) has been proved in this country, we are for the present obliged to follow the authority of the London Society in the standard name adopted.

The variety before us has fruited here for several years past, and we do not hesitate to place it among the half dozen *finest flavored* plums known here,—a district where the plum flourishes well, and is very extensively cultivated. When we say, that, in point of flavor, it is not equalled by any purple plums, except the (*true*) *Purple*

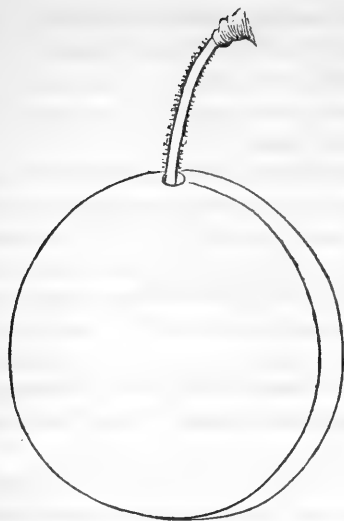


Fig. 1.—*The Red Diaper Plum.*

Gage, (a scarce sort,) and the *Purple Favorite*, it will be seen that we place it in the same rank as those highest standard varieties,—the *Green Gage* and the *Jefferson*. It is impossible to say more in its praise in this respect; but we may add that the flesh is melting, juicy, rich and delicious.

Like the *Green Gage* and *Purple Favorite*, the trees of this variety are rather slow growing in the nursery, though they are thrifty and hardy when planted out in the orchard or fruit garden. The leaves are rather small and oval, and the young shoots nearly smooth, or, more properly, semi-downy. In growth and foliage there is a marked resemblance between the *Purple Favorite* and the *Red Diaper*, though the fruit is distinct.

The *Red Diaper* is a good bearer, and the fruit usually hangs well upon the tree, being little liable to rot. It is easily distinguished from most purple plums by its uniform brownish-red colour, which, when the fruit ripens in the shade, predominates over the purple. The bloom is very thin, and of a pale blue. The stalk is rather slender, and slightly hairy. The fruit, which is a freestone, is at maturity about the end of August. We cannot recommend to those collectors of really *choice* fruits, who do not already possess this variety, any one more worthy of attention than the *Red Diaper Plum*.

TO CURE THE PLUM TREE KNOTS.

BY C. REAGLES, SCHENECTADY, N. Y.

DEAR SIR—As the question of the *Black Knot Excrescence* has not yet been definitely settled, and as the subject—which I am sure is an interesting one to all cultivators of the plum—has been little alluded to of late, I have concluded to give you a brief statement of my experience upon the matter; having extensively cultivated the fruit, for the last fifteen years, with great success.

It is generally supposed that the *knots*, or swellings, are caused by the attacks of an insect, and the idea of the curculio being that insect has been pretty well disseminated. My own experience, however, goes to prove that the idea is far from being a correct one, as there really is no evidence to substantiate it. This is, as you know, a celebrated plum district. The trees are generally loaded with fruit every year, and

are never troubled with the curculio; yet many of the trees belonging to a neighbor of mine are covered with knots, and I am under the necessity of cutting them off my own trees annually to keep them from the same condition. It appears evident, therefore, in fact I may say conclusive, to my mind, that the excrescence is not caused by the curculio; because, supposing that insect to be prevalent here, it is not at all probable that they would attack the *bark* in preference to the *fruit*, as the knots continue making their appearance as long as the sap is in motion. I have, until quite lately, been under the impression that it might be caused by some other insect. I therefore watched the trees quite closely, but have never discovered any insect feeding upon, or depositing its eggs in the bark of the tree.

The fact, that the *larvæ* or the eggs of one or two insects are sometimes found in the *knots*, is no evidence of the insect being the cause of the disease; since the *larvæ*, or the eggs, as the case may be, are not to be found when the swelling first appears, nor until it has become quite large and pulpy.

I have, in consequence, arrived at the conclusion that the disease is not attributable to the attacks of an insect. It is nothing more nor less than an impure state of the sap, caused by the introduction of some improper food, of a virulent and contagious nature, into the circulation through the agency of the roots or leaves.

Or, it is an ulcerous habit, peculiar to those varieties of the plum, with coloured fruit, which makes its appearance in the infancy or at an advanced age of the tree, according as it may be infected. In support of these views, I shall state the following facts:

1st. Suckers taken from the roots of a badly diseased tree, will, without excep-

tion, eventually become diseased. On the other hand, seedlings, grown from the seeds of a healthy tree, will rarely be affected, unless contiguous to trees in an unhealthy state.

2d. Buds, taken from diseased trees, and inoculated on healthier stocks, have become so much infected as to be cut down, entirely, the first year after being operated upon; while in other cases where the trees, from which the buds for inoculating were taken, were in a healthy condition, quite the reverse was the result. They remained healthy and sound. This I have tried repeatedly.

It may not be amiss to state, here, that the trees bearing light coloured [white or yellow,] plums are seldom affected, and never unless immediately surrounded by diseased trees of the dark coloured varieties. [This is perfectly true, except when the disease is very wide-spread and neglected; the yellow sorts *are then attacked*. Ed.] I could adduce many other similar instances favorable to my conclusions; but I shall, at present, after proposing a remedy which suggests itself to my mind, leave the subject to some more skillful cultivator who may take advantage of the above hints.

The remedy which I propose is to *cut and keep cutting*, as long as the knots make their appearance, covering the wounds thus made with Mr. DOWNING's solution of gum shellac, at the same time freely watering with copperas (*sulphate of iron*) dissolved in water, at the rate of one ounce of copperas to two gallons of water. This may be considered rather strong; but the trees will bear it. It is a very powerful disinfecting agent. I have seen it used with great success on trees which were given up for dead. It possesses some potent vital principle, of which I am not suf-

ficiently versed in *materia medica* to explain. I became acquainted with it several years since in perusing an extract taken from a *French Journal*. I have since spoken of it to my friends who had sickly trees, who have proved its extreme efficacy

in restoring them to their former luxuriance.

Respectfully yours.

C. REAGLES.

Schenectady, N. Y., June, 1843.

[See, also, our own experiments with copperas water, p. 532, vol. II, of this journal. ED.]

HINTS TO CULTIVATORS OF THE PEAR.

BY A MARYLAND SUBSCRIBER.

I HAVE observed, in the Horticulturist, that you think the pear tree more tender or delicate in its bark and wood than most other fruit trees usually considered hardy. Hence it is more liable to injury by the frosts of winter, or the heat of summer, than even the peach or nectarine.

This opinion has been also entertained by me for several years, and I have made some experiments based upon it, which, if you please, you may lay before your readers.

Observing, about eight or nine years ago, the bad effects, which long continued dry weather had upon some dwarf pear trees growing in my garden, I determined to endeavor to protect them if possible against the violence of our extremes of temperature, both of summer and winter.

After various trials, I have found that the best mode of attaining the desired object, is to make use of coverings—either straw or coarse salt hay. Where the latter is readily obtained I should give it the preference; but straw answers the purpose equally well.

My application of the covering of straw or hay is a very easy one. Considering the roots and the trunk the points most needing protection, I begin by binding a lining of straw somewhat loosely round the whole trunk as far up as it can easily be ex-

tended. "Straw-rope" has a still neater and better effect.

I then cover the surface of the ground under the tree, so far as I judge the roots to extend, with a layer of straw, six inches thick. To give it that clean appearance which it should have in a well ordered garden, I fasten it down with four small poles, laid upon it so as to form a square, and fastened with four hooked pegs, driven into the ground to confine the poles to their places. After these poles are fastened down, the ends of the straw, that project, can be cut off regularly about six inches beyond the poles.

Five years have elapsed since I first began to protect dwarf pear trees in my garden in this way. I assure you I have found it of such manifest advantage, that I cannot too highly recommend it to yourself and your correspondents. I think I have tested it with all possible fairness, as I have *straw-ed* every *alternate* tree, in a long row of dwarfs, and have therefore been able to judge very positively of the good effects of this protection against the extremes of temperature.

The trees that have been *straw-ed*, when compared with those left in the usual state, exhibit the following evidences of the benefits of this treatment.

In the first place, the foliage is of a

darker and healthier green, and the annual growth is more regular and vigorous. These effects I attribute to the preservation of a uniform state of moisture and coolness about the roots, in the place of the great alterations from cold and wet, to dry and parched soil, that often rapidly succeed each other in this climate.

In the second place I have never, with a single exception in forty-three trees treated, had a case of winter-blight in trees whose trunks and roots were well protected with straw; while I have had nine cases in a year in a row of thirty-five trees not protected.

I am also confident that the dwarf pear tree is rendered longer lived when protected against the too sudden changes of the atmosphere in this way.

The bark of the trunk swells gradually, as the tree increases in size, and remains tender and smooth till old age, instead of becoming dry, hard, and cracked, as is otherwise too often the case.

I will add, in conclusion, that I find it necessary to renew or replenish the covering of straw, on the ground, every year in the spring. That upon the trunk usually lasts two years. When laying down a fresh coat of straw, I also lay two or three tobacco leaves, or a handful of tobacco stalks, around the collar or base of the trunk. This I find keeps away insects that might otherwise be inclined to harbor and make their nests there. I am, sir, with respect, A MARYLAND SUBSCRIBER.

June, 1848.

THE DISEASES OF THE PEACH TREE IN WESTERN NEW-YORK.

BY J. W. BISSELL, ROCHESTER, N. Y.

DEAR SIR—In discussing with a Boston nurseryman, the subject of the diseases to which Peach trees are liable, and especially the *Yellows*, I took the position that trees raised in this vicinity and removed thither, would maintain their health for a long time, and probably entirely escape the *Yellows*, if properly treated; and I thought that trees raised there, on soil to which lime had been applied, and from pits and buds from this vicinity, would also prove healthy. To test the matter, I sent him this spring a barrel of pits, and at the proper season, shall send him the buds with which to work them.

Trees one year from the bud, grown here, are not so large as those of the same age raised in New Jersey or Delaware; but the distance between the buds is short, and the wood is hard and perfectly matured. This

I consider of great benefit, for the nursling is then sent out into the world with a good constitution, and better able to resist any unfavorable influences of soil or climate. The *Early York*, (serrate leaved, known here as the *Early Purple*,) in good soil, grows from four to five feet high, and from one to one and a-half inches in diameter the first year; and the *Oldmixon*, one of the freest growers, will be from one to two feet higher, though no larger at the ground.

We all know, that the trees which bear late peaches, are much more vigorous and hardy than the early varieties, and of course the pits from the former are much better to plant for stocks. The large nurseries here use these best pits, purchased in quantities from the neighboring farmers, who raise large late peaches for drying.

We find that our best and highest flavored peaches are raised upon our light land, but such land is all suitable for the cultivation of wheat and other grains, and although it does not produce the largest crops, they are uniform, the straw is short and firm, the heads well filled, and the kernels plump. A careful analysis shows a fair proportion of lime and potash in all our soils, though in our sands there is not much organic matter. To the presence of these minerals, I attribute much of the vigor of our trees, and the deep green of their foliage noticed by you. In the nursery with which I am connected, (the Rochester Commercial Nursery of Bissell, Hooker and Sloan) there are peach trees, twelve years old, with bark as smooth as that of a young cherry tree, and tops as handsome as could be wished. This smoothness of the bark is maintained by annual washings with soap, and the heads are kept in order by the shortening method of pruning so highly recommended by yourself and others.

I have lately seen peach trees here, about thirty years old, that have always produced good fruit, though of late years not in great quantity; it was, of course, at the tips of the branches, and required to be *shot off with a gun*, or brought down by a violent shake, neither of which methods of gathering are considered best in all circumstances, though they are sometimes adopted from necessity. When trees thus badly pruned, or rather never pruned, are not more than ten or fifteen years old, they may be renewed by sawing off the limbs just above their junction with the body, and covering the wound with the solution of shell-lac; in most cases new shoots will start, and a fine growth of young wood be formed which will bear fruit "within hailing distance."

It can hardly be our climate that keeps

the peach tree in health, for among the thousands brought here from New-Jersey, I have occasionally seen some that were affected by a disease corresponding with the descriptions of the Yellows, but they were few, and invariably those set in grass land. When, at my suggestion, the turf was all well spaded in, as far as the branches extend, and the ground thus far kept well cultivated, the trees recovered.

If some of your correspondents in New Jersey will send me, by express, some of the wood of a tree that has died of the Yellows, and some of the soil on which it grew, I will upon the return of Dr. LEE, (the able editor of the Genesee Farmer,) from Augusta, have an analysis made of the same, and compare it with that made from the ashes of a tree grown upon land, of which the parts are:

Alumina,	4.15
Oxide of Iron,	3.41
Silica,	78.00
Organic Matter,	8.06
Lime,	2.13
Potash,	1.17
Magnesia,	0.31
Other minerals in small quantity & water,	2.72
	<hr/>
	100.00

This soil will produce thrifty and handsome nursery trees. But I find the *lime and potash* will thereby be reduced about one quarter, *and must be renewed* for another good crop. This is not as absolutely necessary for standard trees in the orchard, whose roots extend for a great distance in all directions, as for young trees, although it is of very great benefit to them.

I have never seen an analysis of the wood of the peach tree, but the loss of *lime and potash* in soils where numbers of them have been grown, shows that these minerals enter largely into their composition. May not the diseases so feelingly described by some cultivators, be attributed to the absence or

small quantity of these alkalis? I can find no diseased trees about here upon which to try experiments with unleached ashes and lime, and must leave that to others more(?) fortunate.

I gave you* some idea of the prices at which peaches were sold in this market. Within a year or two these rates must become less, from the number of young trees just coming into bearing; at the same time, the profit to the grower will be greater. Formerly he was obliged to market his own fruit, and not being able to be in two places at the same time, his attention was divided; either some good bargains were lost, or while he was negotiating, his fruit would not be properly cared for at home. Of late, a new class of *middlemen* has sprung up, fruit merchants, who contract for whole crops, and run their own risks of sales. This has been found to be of great benefit to producer and consumer—the market is much enlarged, and the demand is regular because the supplies are regular.

Were the practice of naming all first rate seedlings adopted, a long list would soon be made. From the *Royal Kensington* many have been raised not distinguishable from the parent. These are ordinarily called “rare-ripes,” with often the local name of the grower. A greater number have been raised from the *Yellow Alberge*, generally superior to the parent; the best of these is called the *Early Barnard*, from the man in whose garden it grew.

We have thus far had a favorable season, and the prospect is, that all fruits will be abundant. Yours, truly,

J. W. BISSELL.

Rochester, N. Y., June 12.

REMARKS.—The foregoing is full of valuable suggestions. That Mr. BISSELL is correct in his explanation of the healthy

condition of the peach tree in Western New-York, we entertain not the least doubt.

The soil of Western New-York, as compared with that of most of the sea-coast, abounds with lime and potash. Long cultivation has in a great degree exhausted these most essential inorganic manures from the older soils, and the peach tree is therefore much more short-lived and liable to disease in the latter than in the former localities.

Mr. BISSELL, with most commendable enterprise, has taken pains to have analysis made of the soil about Rochester. What he states of the rapid abstraction of lime and potash from the soil by a crop of young peach trees, fully proves that these trees will soon exhaust these elements so necessary to their perfect growth and health in any soil. Is it then, any longer surprising that in these very soils on the sea-coast, where the peach was once the most luxuriant and prolific, it is now a comparatively feeble and short-lived variety of fruit trees? *Potash and lime* have been taken up by each succeeding crop for twenty years, and have been only very scantily returned to the soil by the ordinary application of animal manures.

Experiments made under our own eyes, for the last five years, have convinced us that *wood ashes* are, on the whole, the very safest and best manure for the peach tree. They not only promote the growth of the tree, but they give its wood a firmness, its leaves a dark, green healthy colour, its fruit a high color and flavor, and the whole tree constitutional vigor. The secret of this is to be found in the lime and potash, which are the principal components of wood ashes.

We stated it as our opinion, in the first edition of our *Fruits*, that the *Yellows* is nothing more than a constitutional debility, resulting from carelessly cultivating the

* Hort. vol. 1, p. 235.

peach tree on an exhausted soil. The admirable condition of the peach tree in Western New-York, and Mr. BISSELL's explanation of it, we think fully corroborates our opinion.

We may add that we have had abundant proof that it is only necessary to get the stones of peaches from a perfectly healthy district, plant them in *properly prepared soil*, and bud them with healthy varieties, to eradicate the Yellows. This course has been pursued in this neighborhood for ten

or fifteen years past. When it was commenced, the Yellows was very prevalent in and about Newburgh—now it is almost entirely unknown, and all the gardens about us abound with healthy trees having high-flavored and delicious fruit.

We hope some correspondent interested in this subject, will do Mr. BISSELL, and cultivators generally, the favor to send him the specimens of wood of the peach tree thoroughly diseased of the *Yellows*, for analysis. ED.

A PEACH ORCHARD RESURRECTION.

BY J. W. DWINELLE, CAZENOVIA, N. Y.

A. J. DOWNING—DEAR SIR: Some 17 or 18 years ago, a row of Peach trees of a dozen or more, situated on the farm of the late E. S. JACKSON of this place, bore fruit so abundantly that they were all broken down and ruined. That fall, a heavy plow passed over the field, burying the wreck of broken limbs, venerable roots, and numberless peach *pits* deep beneath the surface. It was then *seeded* down to grass, and the next season, there was nothing there even to suggest the idea of a controversy as to whether peaches would grow on our sky approximating hills or not, such an unbroken field was there of timothy and clover! A heavy sward was soon formed which forbid the formation of anything beyond the *herbaceous*, and if there were germs below, it was a secret of the grave, deep in its bosom buried, which nothing but a resurrection could unfold.

Thus matters rested, and thus was the ground unbroken, until two years ago, when another plow, 'well beamed and driven,' inverted the surface again, studding the ground for rods around with pits—not *bottomless*, but from the bottom! These gave

a tolerable crop of *peach trees* last season and considering the fact that the frost had not had a fair chance at them, as good as could be expected. This spring, saving the irregularity of their arrangement, the whole ground in that locality mostly resembles a young nursery of peach trees. By slightly removing the surface at almost any point, you can find pits looking as fresh as those of last season, all of them as ready for a *start*, as though they had not just awakened from a *Rip Van Winkle sleep* of fifteen years or more!

I know that the seed of Egyptian wheat has been preserved for 2,000 years, and that the germ of forest trees, is secure in the ground for an indefinite period of time. But the manner of preserving wheat so long may have been one of the lost arts of the mystic people of the Nile, besides too, when found, it was in such decided proximity to its spicy and well rosined possessor, that it must have been at least half *embalmed*! And then the forest trees are but 'children of the forest,' having primeval and undisciplined ways of their own, subject to but little of the *tasteful* refinement and book

rules that encompass the growth of the peach, so that the analogy would fall short of being complete!—at any rate, are not the facts as recorded above remarkable, and if so, how may they be accounted for?

Very respectfully, yours, &c.,

WM. H. DWINELLE.

P. S.—In the July No. 1847, of the *Horticulturist*, p. 47, is a communication from “C. S.” of Newport, N. Y., on the subject of ‘*protection against late frosts*,’ wherein he very judiciously recommends artificial means for that purpose, such as the building of fires, and the accumulating of smoke in the vicinity of fruit trees, &c. &c. This brings to mind a novel incident that occurred in our vicinity two or three years ago.

A large drove of cattle applied to one of our farmers for “food and rest” late one cold evening. The farmer could only accommodate them by turning—or rather *cramming* them into a small orchard. That night there came a frost, with such a degree of *earnestness* that it cut off our whole apple crop for a great distance around; not an orchard bore fruit that year, except the above mentioned farmer’s; his alone escaped, and bore abundantly.

He very naturally attributes the protection, to the animal heat and steam, arising from the large *pen* of cattle, which he was so fortunate as to secure for *that night only*!

W. H. D.

Cazenovia, N. Y., May, 1848.

ORNAMENTAL VASES AND CHIMNEY TOPS.

WE have lately made the acquaintance of a new material for architectural and garden decorations, which, we think, promises to be valuable to those of our readers engaged in building or improving tasteful houses and grounds.

We allude to the *terra cotta* ware, made at the Garnkirk works, Scotland, and which is now largely imported and offered at very moderate prices by the agents in this country.

This *terra cotta* is, in texture and composition, similar to the very best fire brick. It is, therefore, indestructible by fire, and very durable in the open air. When exposed to the weather it does not crumble,

like articles made of Roman cement. We were shown some specimens, in Boston, which have been in use in most exposed places for six years, and are as perfect as at first.

A great variety of articles are made by the Garnkirk company, including *tessellated paving tile*, *pipes for conveying water*, *ornamental balustrades*, &c. We shall, however,

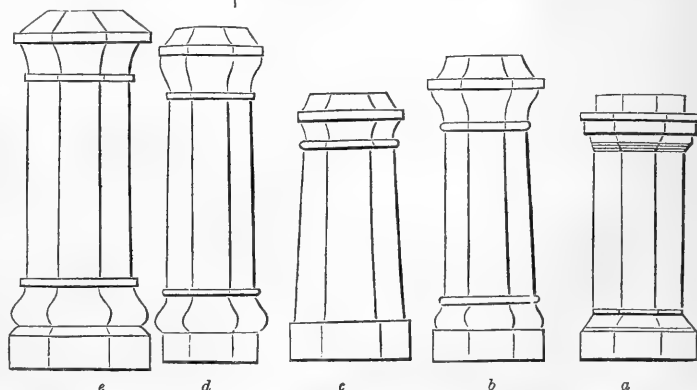


Fig. 2 — Five Small Sized Chimney Tops.

at the present moment, confine our notice chiefly to two articles most in demand in the United States,—*chimney tops* and *vases*.

The cottage ornée demands something more tasteful than the clumsy old form of the common brick chimney. To separate the square mass into a stack of distinct planes, each nicely moulded and proportioned, is to give a lightness and elegance to the chimney, which constitutes one of the leading features of English rural architecture.

It has hitherto been difficult to build handsome stacks of ornamental chimneys in this country, partly because we have, as yet, no bricks moulded in the proper forms, and partly because the chimney tops, hitherto made in Roman cement, are not found to stand the climate of the northern states.

As we have made some inquiries of a disinterested builder, who has pretty thoroughly tested the Garnkirk chimney tops, in situations exposed to the utmost vicissitudes of summer and winter in the northern states, we have little hesitation in recommending this material to very general use. It is of a very agreeable drab, or fawn colour, naturally, and may be painted so as to correspond with the hue of any building upon which it is used.

These chimney tops are made in a great variety of patterns and sizes, to suit houses of different dimensions. Fig. 2, shows five forms of chimney tops, for cottages of small size. Thus, *a* is 2 feet 8 inches high, *b* 3 feet 6 inches, *c* 3 feet, *d* 3 feet 3 inches, *e* 3 feet 4 inches. The prices of these range from \$2.25 to \$3.25 each.*

Fig. 3, represents three forms, also suitable

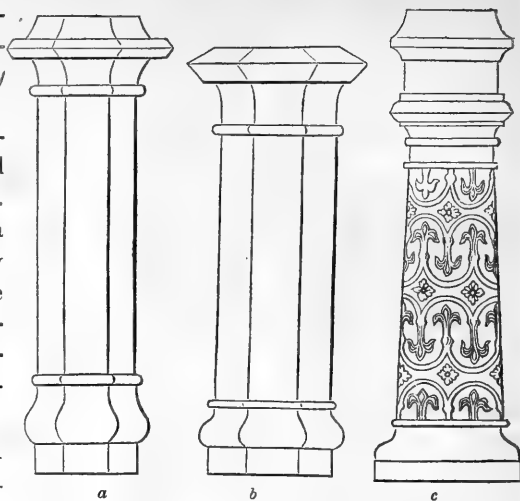


Fig. 3.—Three Medium Sized Chimney Tops.

for Gothic cottages, but of larger size. The heights of these are as follows : *a*, 4 feet 9 inches ; *b*, 4 feet 6 inches ; *c*, 5 feet. Prices from \$4 to \$6.75.

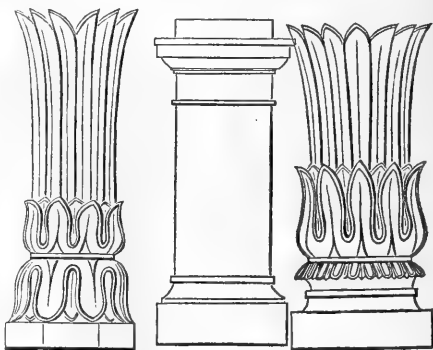


Fig. 4.—Three Grecian or Italian Chimney Tops.

Fig. 4, shows three forms of chimney tops, suitable for small cottages in the Italian or Grecian style. They are only 3 to 4 feet in height, and cost from \$2.75 to \$5.50 each.

Figs. 5 and 6, show eight richly ornamented shafts, in the Elizabethan style, copied after some of the finest antique specimens. These are each 6 feet high, and are admirably adapted to ornamental villas of the first class. Some of the richest effects,

* We give prices for the accommodation of our western readers and correspondents.

in old English rural architecture, were produced by grouping various patterns of chimney shafts together in one stack, as represented in these two figures. We have, as yet, seen no successful attempt to construct them in this country; but now, that the Garnkirk ware is found to bear our climate, it will be easy to add to the beauty of an ornate cottage by groups of chimneys like these.

We say, an *ornate* cottage,—for it must be continually borne in mind, in all the decorations of rural architecture, that the degree of ornament should be proportioned to the class and description of the edifice. Thus, it would be in bad taste to put a highly decorated chimney top, like *c*, Fig. 3, on a very plain cottage. It is only upon a cottage where the veranda, the windows, the gables, &c., are all proportionally decorated, that a rich chimney shaft can be correctly used. *Harmony of decoration* in a building has, or should have its laws; and it is no more tolerable

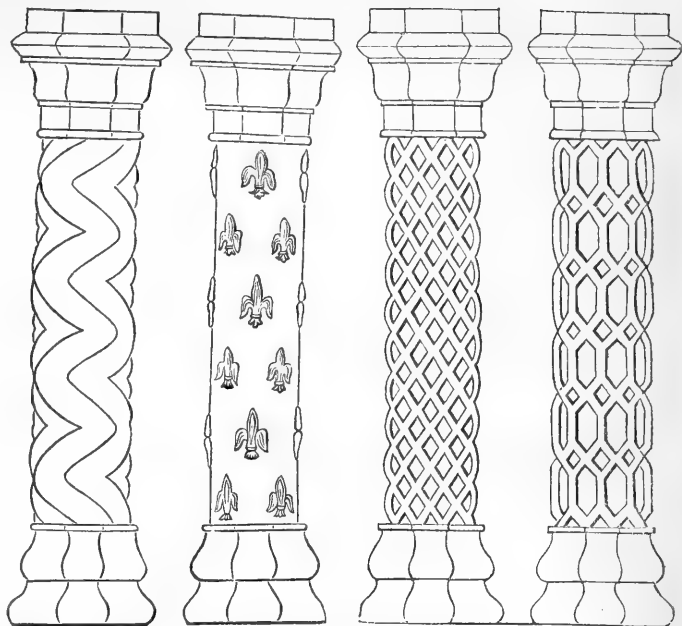


Fig. 5.—Elizabethan Chimney Tops.

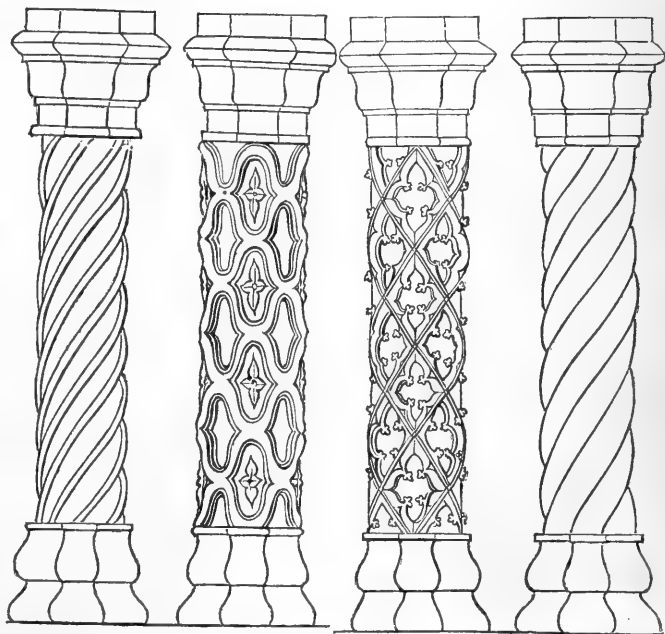


Fig. 6.—Elizabethan Chimney Tops.

that a builder should put very rich chimney tops on a bald and meagre cottage, than that a hatter should put a plumed chapeau-bras on the head of a day-laborer.



Fig. 7.

There are few objects that may, with so much good effect, be introduced into the scenery of pleasure grounds, surrounding a tasteful villa, as the *vase*, in its many varied forms. The terra cotta vases of the Garnkirk company exhibit



Fig. 8.

pleasing forms, and a soft mellow shade of colour, which harmonizes admirably with the hue of foliage and turf. From among the variety* manufactured by them, we have selected a few, of which

we here present engravings. Fig. 7, is a pleasing pattern, ornamented with foliage. There are three sizes of this pattern; the smallest being 2 feet high, and costing \$5.

Fig. 8, is a new vase, ornamented with a wreath, and is generally admired. The height is nearly 3 feet, and the price \$6.

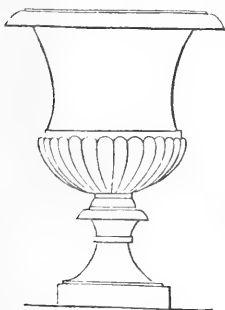


Fig. 9.

Fig. 9, is a classical vase of pure and simple outline. It is $3\frac{1}{2}$ feet high, and costs \$10.

Fig. 10, is a copy of the celebrated Warwick vase, 4 feet wide and $2\frac{1}{2}$ feet high.

Figs. 11 and 12, are classical vases, upon *pedestals*, as they should always appear when placed in any part of the pleasure grounds. To set down

a vase upon the earth, or the lawn, without any pedestal, is to give it a temporary character, and to rob it of that dignity and importance which it gains, both to the eye and the reason, by being placed on a firm and secure pedestal.



Fig. 10.

Fig. 13, represents a pair of *tozza* vases, for a fountain. The measurement of the whole 10 feet high.

Looking at the vase in an artistical point of view, it is considered as performing the office of uniting the architecture and the grounds of a complete country residence. It is the architectural idea, carried a little beyond the house, and shows that the same feeling of taste and embellishment reigns in both departments of the residence. It

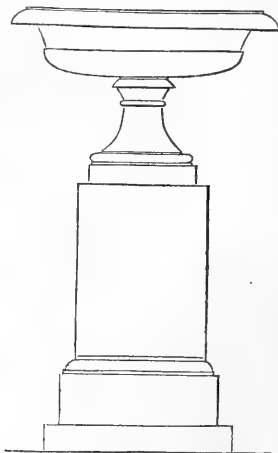


Fig. 11.

will be easily understood from this, that the most suitable place for vases is in highly kept portions of the pleasure ground,

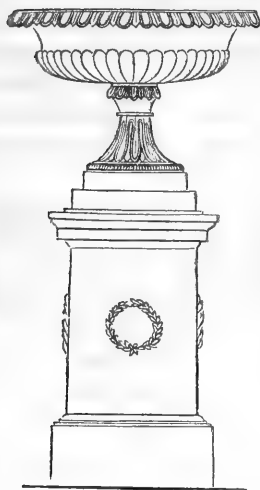


Fig. 12.

near the house, where the vases may be seen in connexion with it; or, at least, where the architecture of the building harmonizes with the highly artificial forms of the vase. The simplest cottage may have its vase; but, where the building is small, the rustic vase, made of bits of wood, and filled with flowing plants, is in better keeping than those made of any more highly artificial materials.

MR. LOUDON has written so ably on the employment of vases in gardens, both in the town and country, that we cannot do better than to give his remarks in conclusion.

"From the influence of fixed and elevated vessels, or other permanent structures, for containing plants, in giving consequence to them, has arisen, not only the employment of stone vases, but even of that description of rustic baskets and vases, for containing flowers, now frequently placed on lawns in extensive pleasure grounds, and which are particularly suitable for cottage gardens. But the satisfaction which rustic vases give, in such situations, is far inferior to that produced by fixed stone vases in town gardens; because, in the latter situa-

tion, flowers of any kind are comparatively rare and cherished; whereas, in extensive pleasure grounds in the country, where there are beds of Pelargoniums, and other flowers without end, it seems almost needless profusion to elevate them in vases. Hence it is, that when stone or pottery vases are introduced into gardens in the country, they are very seldom filled with plants of any kind. They are introduced there as beautiful works of art, to give pleasure, by their contrast, to the beautiful works of nature with which they are surrounded.

"Another reason why vases of flowers should be introduced into the little walled gardens of streets is, that they harmonize admirably with the masonry and architectural forms with which they are surrounded. For this reason, also, stone vases should be *sparingly* introduced into pleasure grounds in the country, except as appendages or ornaments to architecture; such as on the parapets of terraces near the house, on the stone borders, balustrades, etc., of architectural flower gardens, &c. They should never be set down on the naked ground; and, above all, they should always have a fixed and permanent character. This character is given when a flower pot or vase is set on a wall, so as to form a termination to piers, pedestals, pilasters, or pillars of any kind; but place it on the coping of the wall, in the interval between such piers, &c., and its character becomes at once temporary and unmeaning; because there is no obvious reason for placing a vase there at all; for limiting the number to one; or for not moving it to the right or left, or even for not taking it away altogether.

"If it be asked, why use vases in the country at all, unless plants are to be put in them? The answer is, they are employed as appropriate ornaments, as beauti-

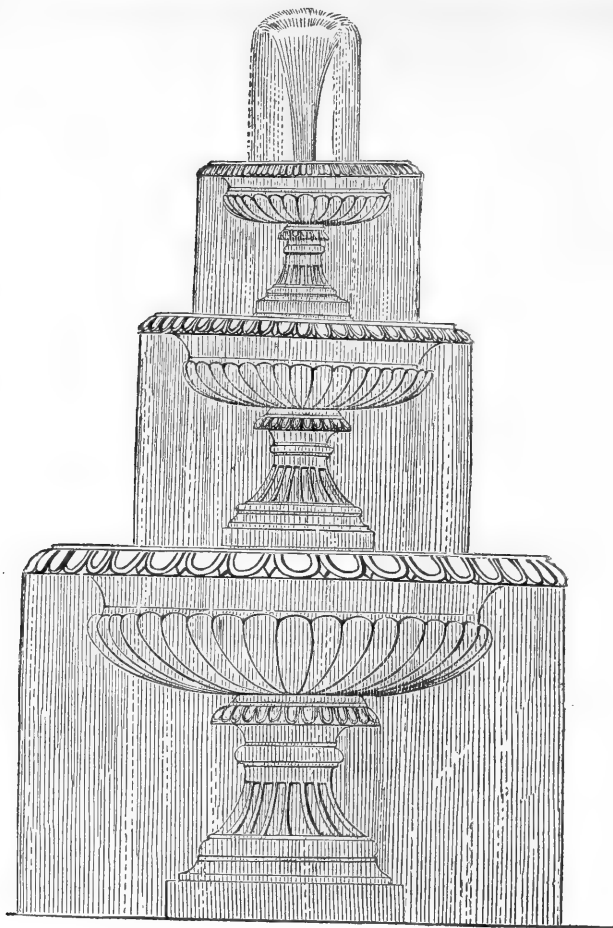


Fig. 13.

ful forms, and as articles of rarity, and of value. But it may be further asked, can an article be beautiful, or confer ornament on another object, when it is itself of no use? Certainly it can. The noblest ornaments are those which are without use, in the common sense of the word; though in the sense of art and refinement, everything is of use which adds to the strength of the emotion of the kind of beauty which it is desired to produce. What would be the splendor of the drawing-room, or the effect of the picture gallery without gilding? or an assembly of highly dressed beauties without those useless articles,—diamonds and other precious stones? Nature has planted in the mind of man, from the rudest savage to the most refined philosopher, a capacity for deriving pleasure from beauty. It is necessary that this want should be supplied; and it will be found gratified, to a certain extent, in every stage of the progress of civilization; partly by objects which are useful in the ordinary sense of the word, as dress, &c.; and partly by such as have no other use than the power of

conferring ornament. In the rudest state of society, we have the tattooing and nose-rings of the savage ; next, the ear-rings, scarcely less barbarous, of a more civilized period ; and, though these must pass away with the introduction of a taste more truly refined, the necklaces and bracelets, which are common to all ages and countries, will probably continue to be so, so long as women dress highly, and large parties are given by artificial light.

“ Another reason for the introduction of vases, and other architectural ornaments of a similar kind, both into town and country gardens, is, their tendency to create and cultivate a taste for natural beauty in the spectator ; since, however paradoxical it may seem, it is, nevertheless, true that we can only be instructed in the beauties of nature through those of art. No person can either enjoy, understand, describe, or remember a landscape properly, who has not been instructed in drawing landscapes, any more than he could enjoy, understand, or analyze any particular style of writing without having been taught grammar and composition. Teaching a person to draw trees, for example, is teaching him to find beauties in trees which he had never seen in them before. Setting before a person beautiful vases, is to familiarise him with beautiful forms, which he cannot help contrasting with ordinary shapes ; and according to his natural capacity, or the suitability of his organization for discernment in forms, he will find in the vase a unity of tendency in the lines which constitute their outlines, a symmetry in their general forms, and a richness, an intricacy, and a character of art in their sculptured details, which will induce him to search for those qualities in other objects of art, and to observe every tendency towards them in the works of nature. To such an observer, the pro-

ductions of architecture and sculpture would assume a new interest ; he would gradually, and almost imperceptibly, acquire a knowledge of, and a taste for, the beauty of forms and lines in objects generally. He would thus learn to distinguish symmetry, regularity, unity, variety, and other abstract qualities in works of art, which he would probably never have discovered in the forms of nature without such assistance ; though they exist there, and are merely imitated by art in a way which renders them more obvious to untutored man, who sees only that mind in other things which he understands and feels in himself.

“ The last reason which we shall offer for the introduction of vases into architectural and garden scenery is, the gratification which such objects afford to the man of intelligence and taste. There are, perhaps, few objects, next to the human figure, which afford as many interesting historical associations as the vase. It may truly be said to be the first and the last production of the plastic art. The first utensil formed by man, in the dawn of civilization, in every country, is a vessel or vase for holding water ; and that on which the highest resources of art are bestowed, in ages of the greatest refinement, is a vessel or vase for holding wine. In the first case, it is hollowed out of a gourd, or rudely shaped of clay, and dried in the sun ; and in the latter case, it is manufactured of costly metals or precious stone ; or if of common materials, such as stone, earthen ware, or glass, it is rendered valuable by the taste and skill bestowed on its form or its ornaments. The history of every country may be traced by its vases, no less than by its coins ; and the history of all countries is set before us in the vases of all countries.”

✎ MESSRS. JAMES LEE & Co., 11 Broad-street, New-York, and 18 India-wharf, Boston, are Agents for the sale of these articles in the United States.

FOREIGN NOTICES.

THE BEAUTIFUL GARDENS OF ITALY.—[The following is part of a letter received by a late steamer from one of our neighbors, who has left his country seat on the Hudson for a couple of years, to explore Europe and Asia. He looks at Europe so much with our own eyes, in a horticultural sense, and describes the perfections of Italian gardening so understandingly, that we are sure our readers will enjoy the following long extracts.—EDR.]

All I said against Italy in the winter, I will unsay of it in the spring. Nothing can surpass it in verdure and luxuriance. In Lombardy, especially, as far as the eye can reach, the most superb crops, the barley being higher than our horse's heads; hill upon hill, mountain upon mountain, terraced to the summit, and the cultivation of the grapes as carefully attended to in the training up and tying, as in a *vinery* in America. And the roads—I do not think Mr. L—'s, (on the Hudson), the first hour after its spring draining and raking, can compare with them: richly gravelled, not a weed to be seen, on either side stone gutters, then granite posts every ten feet, then a double row of horse-chestnuts, (now in bloom), then a gravel-walk, then a closely shaven and verged turf border; and this for 100 miles, to Milan; and 31 miles from Milan to Como; and in fact, all over Lombardy. The country is perfectly flat, and the roads, or rather avenues, straight, and would be monotonous, if one were not so charmed by the cultivation, and the most exquisite order. Not a wall or fence is to be seen, seldom a hedge,—the divisions being made by trees, (pollards), of mulberry or poplar, whose summer growth generally does duty as fire-wood in winter.

But these divisions, or even fields, can seldom be much seen, from the density of the shade trees—chestnuts or lindens, that border the great roads. *

* * * * * Milan, itself, is surrounded by a noble, gravelled drive of 12 miles, bordered by a double row of horse-chestnut, now in full bloom and very magnificent. The celebrated cathedral here, far surpasses in richness and beauty all I have hitherto seen. Conceive of 7000 statues on the roof, on the different turrets and pinnacles, and the carved stone flowers that adorn the flying buttresses in 32,000 varieties! * * * We have been two days at Como, and I am convinced that I have passed last night and this morning at a spot never elsewhere to be surpassed in its glorious beauty. Hitherto I held up for the Hudson, but to-night we have come home to Como, hearty and dissipated; for we have seen Bellagio! I am almost tempted to say no more, for I can't describe it—who can describe Bellagio? I will merely say this, that you sail up the lake (which is 52 miles long) some 20 miles, through scenery wonderfully similar to the Hudson highlands from Caldwell's to Buttermilk falls, and about as wide as our river there; but differing in this way; where the dock is at Caldwell's, will be a terraced wall, springing from the

water, surmounted by a heavy stone balustrade—This again is crowned at its angles, and pilasters, with statues, or vases, with a double flight of stone steps, facing two ways, descending into the water. Back of this terrace is another, perhaps a third, with their walls towards the river *espaliered* with oranges and lemons, or with Lamarque and the true Banksian roses in a mass of bloom. Then rises a palace, crowned by a balustrade and statues, and flanked by cypresses, ilex, Italian pines, mingled, towards the flower garden, with *magnolia grandiflora*, laurustinus, laurels, oleander, and purple beeches. These gardens leading through formal, but beautiful myrtle hedges, to *bosquets*, and finally to terrace upon terrace, with tiers of mulberry and vines, and so on, up apparently inaccessible hill sides, to the top of a mountain as perpendicular and higher than "Anthony's Nose." On the very apex will be perched, perhaps, a village of 60 or 100 houses, and its church of grey or yellowish stone and tiled roof. These villagers are tenants and tillers of the soil of the villa below. Imagine this existing all through the Highlands; these villas differing in size and taste like our North river places: some with one terrace, others two, others with half a dozen. Some, on the contrary, immediately rising from the water, like Mr. Cruger's summer-house; having in this case their terraces in the rear, and on the lake, canopied balconies overhanging it: sometimes, again, the village will be on the water, and the villa half way up the terraced mount. The mountains are generally much more elevated and more sharply pointed than our "Sugar Loaf," (the most conical of the hills on the Hudson); surmounted, perhaps, by a chapel, so inaccessible that you would think it built as a penance for those to visit it who live at its foot; and this is sometimes actually the intention. We passed one to-day immediately over a village which it took 5 hours to reach. To convey to one at home some idea of the grouping here, you must place yourself in our Highlands, with, on the top of Breakneck a convent; on the top of Crows-nest a village; half-way down, perhaps, another, the houses not scattered, but all huddled as close together as possible—20 houses and a church not covering as much space as 5 with us: a point like Stoney point would have a villa on its south and one on its north, and perhaps another on the point; the gardens and terraces all running into each other by their terraced walls. On the highest ground would be perhaps a little village, or ruined, ivied tower. Every point you turn you come to a villa, a palace, or a town, snugly stowed away on a mountain, or a projecting cliff, like West Point, as if to be put out of temptation.

All these places are accessible only by boats or mule paths, for there is no beach or level ground. The mountain begins from the water. This is the character of all the Italian lakes.

After running up through this highland scenery of Como for two hours, you come at last to a pro-

promontory, with a position very much like that of West Point, supposing that the Hudson, forked there, and one arm ran on each side. This is *Bellagio*, belonging to the Dutchess of Bologna. You stand on the top of this promontory and look down one lake, running 20 miles, to Como : and this view is similar (though finer, from the mountain, being higher and more delicate) to the view down the North river from Kosciusko's monument. When you look, as it might be, upon a point of the Hudson running between Crow-nest and the West-point dock, some 20 miles down the lake, to Lecco. You then look up, as if to Newburgh, and see about as far as Newburgh from West-point, [9 miles] the *Alps*, in snow-clad majesty. Opposite Bellagio, [as if at Cold Spring] is a magnificent villa belonging to *Fanny Ellsler*. As if at the foot of Crow-nest is the palace of the Princess of Prussia. As if at the West Point landing is Pasta's. As if at Buttermilk Falls, 2 villas and a large orangery of *Taglion's* : further down, opposite [say at St. Anthony's Nose] is the villa *d'Este*, formerly owned by Caroline, Princess of Wales. All these we visited. Above and below are the villas of the Milanese and some English nobility. Many of these palaces and villas cost millions (even where labor is so cheap as here), filled as they are with costly works of art. At one, we saw this morning Thorwaldsen's great basso-relievo of Alexander's triumphant entry, made for Napoleon's arch of victory, at the monument of the Simplon road.

And now comes my hardest task—to describe this promontory, Bellagio : I don't think it covers 5 acres, rising, conically, perhaps 600 feet from the water ; but the walks, which are gravelled or paved with very small stones, are 3 or 4 miles in length, most admirably managed with dense plantations, tunnels and bridges. The promontory, from the lakes, seems heavily wooded, and it is in parts, as dense as the wood at *Montgomery Place*, and yet every thing has been done by art. The deep shade is caused by the most charming undergrowth of cypresses, laurel, casuarina myrtle, and English yews. You enter through a cavern into a glen quite spectral in its midnight darkness, surrounded by immense Italian pines, and undergrowth of yew : You are then let down into daylight, and into a charming peep of one of the lakes by the most delicate gradations of dark to light, first going through not only the *co ors*, but also the changes of *form* of the following evergreens—cedars of Lebanon, *pinus excelsis*, deodars, and weeping larches, which actually wave and dance you out into the sun-light.

This is the only large specimen of the true weeping larch I ever saw. The full grown deodar (*Cedrus deodara*) is quite as pendulous as the weeping larch, and they harmonize admirably together. After these trees, you shortly commence, in the midst of a blazing sun, with the most feathery and delicate of the acacias, and grow cooler and darker with the coarser varieties, and the rose acacia, all enchantingly entangled with the Chinese wistaria, which here flowers all summer. After struggling through purple beeches, and some other dark foliage which I could not find out, you get out again

through a lovely grove of *araucarias*, *pinus excelsis*, *p. longifolia*, and *abies Douglassii* that I knew, and some 20 more that I never heard of, that actually threw me into an arboricultural phrenzy—at finding how far we are behind the time. From here we emerged into a little lawn quite surrounded by high cliffs, covered by superb plantations of aloes and bananas, pepper trees, scarlet and white horse-chestnuts, all in flower ; and a collection of rhododendrons, dazzling from their gorgeousness. This lawn is devoted to *magnolias* of every possible variety, of which some eight or ten sorts were in flower. The air was heavy with perfume. These were in single specimens, and in masses. You left this *oasis* by the only way it seemed possible to get out—a cavern in the rocks—through which you passed until you got into profound darkness ; gradually the light returned ; at last you reached a point from which two vistas opened. One down the lake to Como, the other down the lake to Lecco. You looked at these as at a picture through a darkened tube ; for the cavern was formed, apparently for this purpose. These tunnels lead you out to a walk bordered by natural rock, perhaps 20 feet high, covered by lamarque and the banksian roses, in such a profusion of bloom, that the rock had the appearance of being painted white and yellow. On the other side the walk was bordered by masses of choice azaleas, in every variety of color and flower, some 8 and 10 feet high. Passing a charming cascade overhung with weeping beeches, waving birches, and willows, the walk led through a maze of Judas trees, all the varieties of double thorns, the laburnum, purple and yellow ; and getting umbrageous and mazy again, with purple beeches, purple berries, and purple filberts, come out again, clear and bright, through different varieties of heath and acacia, upon a little platform looking up the 3d lake and to the snowy Alps, and down a perpendicular precipice of some 600 feet, into an exquisite flower garden below, into which I was prevented from falling by a parapet interwoven with every variety of honeysuckle ! The other walk from the cavern led along a similar wall of rock pierced into holes, and filled with all the varieties of the cactus and aloe, with an occasional frame of rustic work covered with air-plants and parasites. This led by a grand terrace, balustraded and statued, and commanding the three lakes, to the palace ; and here let me breathe, for I could scarcely do so last night and this morning, from wonder and delight !

Putting the wonderful views quite out of the question, Bellagio is the most extraordinary place I ever saw for perfect planting and rare collections. I have not mentioned a third of the rare trees, for though every thing is nicely labelled in zinc, the names were mostly in Italian, and the head gardener, who was English, was away. It is surprising, that a place like the lake of Como, surrounded by mountains mostly snow-capped, within 15 hours of the Simplon, should possess, of all places in the north of Italy, a climate allowing exotics to remain out in winter. * * * 14th May. The preceding pages left us at Como, which we left yesterday, coming to Lago Maggiore—sleeping at Arona. After dinner we walked up the hill to see

the famous statue of Carlo Borromeo, 72 feet high, on a pedestal 46 feet. The statue is of bronze, and is really immense. One arm is stretched out over the lake, blessing his native city. A bible, which he holds in the other hand, is 9 feet long. The countenance expresses the benevolent character given to the man; and the whole thing is in such admirable proportion that it does not seem so colossal, although the whole, (statue and pedestal,) is over 100 feet high. It is possible to ascend it inside, but dark and fatiguing. The head will hold 15 persons.

Lago Maggiore, at Arona, where we slept last night, is very lovely; much wider than Como, but not so picturesque. An idea may be formed by imagining a sort of mixture of Jamaica lake (near Boston) and the Hudson near West Point. The mountains, except on the Swiss (Alps) side, do not rise so abruptly as at Como. In many parts there are towns, or meadows, prettily dotted with trees and villas, and villages lodged between the water and mountains. Our saloon was a large one, with three French windows, opening to the floor, upon balconies overhanging the lake. From it we counted 7 villages, part in Lombardy, part in Piedmont, and one in Switzerland; for the lake is bordered by 4 countries. The sun had just set, and the moon—a full moon, rose over snow-capped mountains—Monte-Rosa, one of the highest of the Alps, while, from the different village churches, stole on the water, the vesper bells; the different modulations produced by the different distances across the water, gave the effect of *chimes*. It was charming; for the evening was soft and lovely.

Starting at 7 this morning, after a delightful ride of two hours, upon a road bordering the water by beautiful villas adorned with flowers and vases, we came to the Borromean islands—Isola Bella and Isola Madre: These are owned by the Count Borromeo, who resides in a grand palace on Isola Bella, for some 2 months in the year.

These islands, which, each, contains perhaps from $1\frac{1}{2}$ to 2 acres, were originally mere slate rocks, lifting themselves a few feet from the surface of the lake, and were thus converted into beautiful gardens, teeming with tropical vegetation, by an ancestor of the present family in 1671. Isola Bella consists of 10 terraces, (the lowest founded on piers thrown into the lake,) and rising in a pyramidal form, one above the other, and lined with statues, vases, obelisks, and immense cypresses. Upon these terraces flourish, as upon the "hanging gardens of Babylon," not merely the citron, and orange, and pomegranate, but aloes, cacti, the camphor tree, (one specimen 20 feet high,) the sugar cane. 2 varieties of tea; and all this *within sight* of perpetual snow, and of the Lapland climate of the Alps.

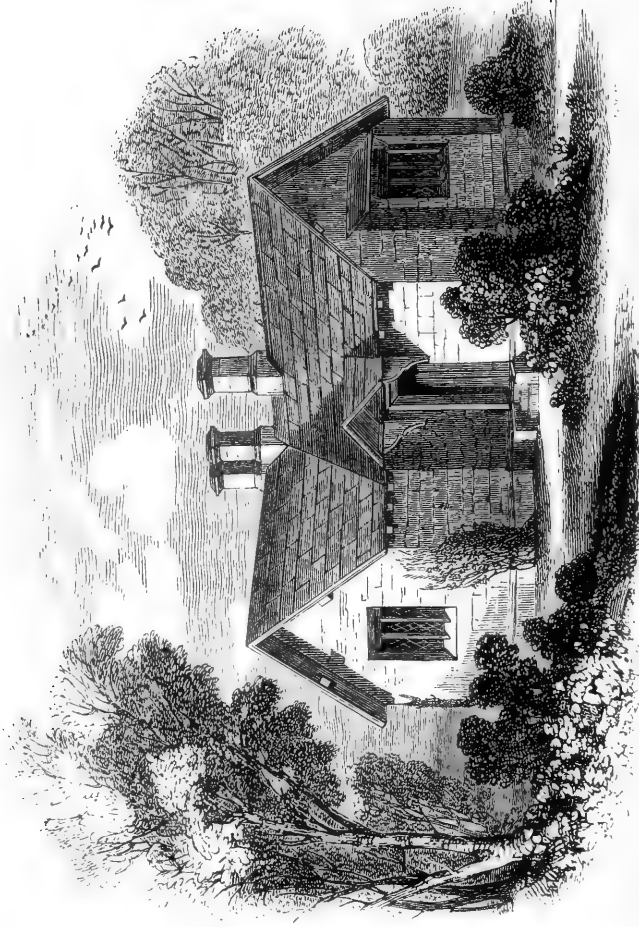
The marvel in these islands is the fact, that every handful of soil was originally brought from a distance, and requires every year to be more or less renewed. And yet I saw as dense a wood, as high trees, and as luxuriant vegetation as I ever saw in

my life. Among the most interesting things at Isola Bella, is a gigantic sweet bay tree, 8 feet in diameter, and the largest, the gardener told me, in Europe, upon which you can indistinctly trace the remains of the word "*Battaglia*," cut by Napoleon with his knife, a few days before the battle of Marengo.

Isola Bella is wonderful, but not interesting. The trees, magnolias, araucarias—many fine specimens; of our white pine, one superb specimen. The situation is lovely about a mile from the shore. The different views entertained of it as a matter of taste, are amusing. Brockden, in his work on Switzerland, says "it is worthy only of a rich man's extravagance, and of the taste of a *confectioner*": while Saussure says it is "un magnifique caprice: un pensée grandiose, une espèce de création." The money that must have been spent in its terraces, statues, fountains, etc. must be frightful! All these 10 terrace walls are covered in with espaliers of oranges and lemons, running round the whole island, and they are really beautiful, laden as they are with fruit.

Isola Madre, which is larger, and distant half a mile, is a gem. This is used rather as a garden or pleasure grounds for Isola Bella; it is laid out in the natural English style, with little bits of lawn of exquisite grass; almost everything that we have in green-houses supports the winter here: immense palms, aloes, larger than mine in the conservatory, (8 were in flower,) araucaria excelsa, 30 feet high, A. imbricata 16 feet; pinus longifolia, and some 10 other rare species, 15 to 20 feet high; splendid cedars of Lebanon; every species of green-house magnolia, with a dense undergrowth of English azaleas, 8 to 12 feet high, in a mass of bloom. One entire bank, half as large as your lawn, was composed of rhododendrons russellianum, catawbiense, alta-clareuse, arboreum and hybrid varieties, 15 to 18 feet high, with thousands of flowers; heaths, higher than my head, as undergrowth. One bed of Chinese azalea, 100 feet long by 5 feet wide, was the most gorgeously magnificent thing, in its way, I ever saw. It was one thick *blaze of bloom*. The Wistaria sinensis, trained as a shrub, 30 years old, with a trunk as large as a man's body, and a head as large as your Virgilia. Three or four fine double camellias, in flower, which are as high as the second story windows, branching from the ground; and a new variety of cypress, (cupressus glauca pendula.) weeping like a willow. One walk of pittisporums, in immense masses, terminates against a hedge of oleanders, &c. &c. The whole planting was deep and umbrageous, producing dense shade; the plants, many yews, &c. evidently being selected for this purpose, and the contrast to the tropical *hot looking* plants was very striking. Beautiful golden and silver pheasants, mingled with the foliage; and the whole seemed to me like some immense conservatory, with the glass taken away. H. W. S. Geneva, 21st May, 1843.





DESIGN FOR A SMALL COTTAGE.

Hort. July, 1848

DOMESTIC NOTICES.

DESIGN FOR A SMALL COTTAGE—SEE FRONTIS-PIECE.—This extremely simple and well proportioned design for a working-man's cottage, is by Mr. JACKSON, an English architect, and was published in the *London Art Union*.

It is a good illustration of the fact that dwellings of the smallest size may be made tasteful, almost without ornament, merely by the adoption of pleasing outlines and proportions. The chimneys are especially neat, and characteristic, and the bracketed gablet over the door gives something of dignity even to this, the simplest form of entrance. The plan of this house in only given in words as follows: "The present subject comprises three rooms, with wash-house, tool shed, &c. attached as a lean-to against the (opposite side of) the building. The living room, fourteen feet square, is placed in front; and from two doors on the chimney side of the room, a bed-room, fourteen feet by twelve feet, and the kitchen, fourteen feet square, are respectively entered. The lean-to contains a wash-house, twelve feet by eight, and tool-shed, &c., eight feet by seven feet. The whole is on the most compressed scale, but is susceptible of much comfort. The estimated cost of this design is £120," (\$600.)

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NORTHERN SPY APPLES.—*Dear Sir:* We send you, per express, a few samples of the *Northern Spy*, which, if you receive them in as good condition as now, will enable you to form an opinion as to their keeping qualities, compared with others.

We have had more in our market the past season than ever before, and yet the dealers sell them now at three to four cents each.

We have a fine prospect of fruit all around Rochester, and if nothing happens hereafter, the orchard crops will be large. Very respectfully, your obedient servants. *Ellwanger & Barry. Rochester, N. Y., May 31st, 1848.*

[We received the specimens mentioned above on the *third of June, in perfect order*, and, after testing their flavor, unhesitatingly rank this sort among the very first of late keeping apples. Indeed there is no apple of the same season which compares with this variety, except the celebrated *Newtown Pippin*. The latter fruit is different in texture, being firm, crisp and juicy, while the *Northern Spy* is tender, sprightly and juicy. There are, therefore, many persons, preferring a sprightly to a rich fruit, who would place the *Northern Spy* even as high as the *Newtown Pippin*. Certainly it is the most beautiful and sprightly of spring apples.

We find that this apple has been sold this spring, in Boston market, at \$3 to \$4 per barrel, and retailed (the finest specimens) as high as 12½ cents each! Ed.]

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TRANSACTIONS OF THE MASS. HORT. SOCIETY, NUMBER 2.—Number 2 of this handsome large 8vo. pamphlet is in the highest degree creditable to the

Society. It contains 4 finely colored plates, and descriptions of the following fruits: the Dix pear, the Tyson pear, the Andrews pear, and Downer's late cherry. These plates are finely executed, being engraved and colored by hand, and are far superior to those in the first number, which were done by the *chromolith* process, which the Society has abandoned.

Besides the description of these fruits, the number contains the three following articles, viz: On the Hybridization of the camellia, by Col. Wilder, (a very interesting paper which we gave entire in our last number); Analysis of the forms of the Pear, from the pen of the corresponding secretary, with 12 outline illustrations calculated to render pomological descriptions more definite, and a paper giving the "results of the cultivation of six kinds of garden pea," by J. E. TESCHEMAKER, Esq. The remainder of the number (77 pages) is filled with the business proceedings of the Society.

We understand that two numbers like the present will hereafter be issued annually. The beautiful manner in which these Transactions are published, certainly equal to the publications of any society on either side of the Atlantic, and the high position which the horticulturists of Massachusetts have attained for practical skill, must, we think, commend these Transactions to general favor.

CLEVELAND CHERRIES.—We have received by express, just as the last pages of these notices are going to press, specimens of several of Dr. KIRTLAND's seedling cherries, from Mr. ELLIOTT, of Cleveland.

Only one variety was in such a state of maturity as to enable us to form a correct opinion of its merit. This is "*Kirtland's Mary*," described in our last volume. a very fine large, obtuse heart-shaped cherry, well worthy of general cultivation. We hope next season to have all Dr. Kirtland's new cherries in bearing in our own grounds, when we can judge more perfectly of their qualities.

THE POMOLOGICAL CONVENTION.—*A. J. Downing, Esq.*—In the June number of the Horticulturist, I notice a communication from Mr. HANCOCK, of New-Jersey, and which was accompanied with some editorial remarks, on the importance and propriety of holding a convention of fruit growers in the city of New-York in the month of October next.

For one, I am much gratified to see a growing disposition manifested among fruit-growers and nursery-men to meet and compare fruits, and interchange views and feelings on this interesting subject. To compare fruits from all parts of the country will do much to correct the nomenclature of the various varieties of fruits grown among us. But this will not be the work of a day, or a year. Many varieties that are now said to be of recent origin, will no doubt prove synonymous with old and well established varieties.

A call for such a convention, to be held at Buffalo on the first of September next, has been widely circulated, and a number of fruit-growers and pomologists, from the east and from the west, have assured us that they would be present upon that occasion. This call was made before any notice had appeared elsewhere. The convention is to assemble on Friday previous to the coming off of the State Fair, and Cattle Show, also to be held at Buffalo. There cannot be a doubt but that a very large number will be present, and take part in the deliberations of this convention, and that much good will result from this convocation.

Under these circumstances, I would beg leave to suggest, that we hold but one convention this year, and that the convention for next year be held in New-York. What say you and friend HANCOCK to this suggestion?

However, should our eastern friends determine to hold a convention, as suggested, in the city of New-York in the month of October, I trust that western New-York, and the western country will be fully represented in such convention. We have much to do in this matter, and I am decidedly in favor of having such convention adjourn from year to year, and make it a perpetual institution. Yours, very respectfully. *B. Hodge. Buffalo Nursery, June, 1848.*

[The pomological convention to be held at New-York, has been in contemplation for some time, and a plan was suggested to us by the fruit committee of the Mass. Hort. Society while we were in Boston last April.

We believe materials can be assembled at New-York for a much more complete pomological convention than at any other point in the country. The pomological convention at Buffalo will no doubt be a highly interesting one, but it is impossible, from the position of Buffalo, and the comparatively recent attention to horticulture in the west, that the same amount of experience in pomology can be concentrated there as in a convention near the seaboard which will be mainly composed of the most experienced pomologists of New-England, New-York, New-Jersey and Pennsylvania. Let our western friends *crystalize* their experience at the Buffalo convention, and afterwards, by an able delegation, add it to the accumulated facts which will be presented at the New-York convention—ED.]

.....

RASPBERRY CULTURE.—[Notice, with you, as in our more immediate neighborhood, there are many complaints made of the uncertainty of the raspberry crop, and of poor success with the canes. It is a difficulty we have never experienced ourselves, as the raspberry is by far the most certain yield of any fruit cultivated by us, not excepting the grape. We have tried them on all soils, and exposures, both north and south sides of close fences; but the situation which with us suits them best is in the open ground, in a *DEEP soil*, (*not necessarily very moist or damp*.) in rows as far apart in the rows as the rows are from each other; about the 4th of July, tying each vine to a single strong stake. We have tried a trellice and bars for each row, but find they do better tied singly in this way. The ground is covered with a heavy coating of manure in the

fall, which is dug in in the spring, and we think it is a good plan to dig in along with it the trimmings of the vines.

The pruning is performed the early part of third month, after the heavy frosts are over, and consists simply in cutting out all but the preceding summer's wood, which is likewise shortened about $\frac{1}{2}$ to $\frac{2}{3}$ of its length. We find a great secret of raising fine large berries, is never to allow the vines to remain in one locality more than 5 or 6 years: every 3 or 4 years setting out fresh plants (suckers) in a new location, to take the place of those whose time is expired, being satisfied that a 'rotation of crops' is necessary in horticulture as well as agriculture.

By practicing steadily on these rules, we have now for 13 or 14 years *never failed*, I think, of a fine and abundant crop of large raspberries. The variety is, I think, the "red Antwerp." *A New Subscriber. Philadelphia, 6th mo. 24, 1848.*

[Good advice; and especially the necessity of making the soil *deep*.—ED.]

.....

POMOLOGICAL CONVENTION IN NEW-YORK.—*Respected Friend:* I have noticed, with pleasure, the suggestion for a general fruit convention, to be held in New-York city next autumn. Permit me, however, to propose an alteration in the *time*. Would not the 20th to the 25th of 9th mo. (September) be a decided improvement, all things being borne in mind? Autumn apples would then be sufficiently matured, as well as a large part of autumn pears; a large portion of the later peaches would be in condition for exhibition, and the winter apples sufficiently developed to show their distinctive characters, about as well, I should think, as a week or two later. In other words, while it would afford an opportunity to compare some of the late summer and early autumn fruits, which ripen quickly, and as quickly disappear, it would give nearly an equal chance for winter fruits, which ripen more slowly, and to which a week or two would be a matter of less consequence. If New-Jersey and Pennsylvania only were taken into consideration, perhaps the proposed time need not be changed; but as there would doubtless be considerable contributions from New-England and from Eastern and Western New-York, I think the 25th of 9th mo. would be as late as would be desirable.

Permit me to inquire, if the Easter Beurré is undoubtedly identical with the Doyenné d'Hiver? A tree of the latter was procured by Ex-Governor Throop, when he was in France a few years ago; and on comparing the fruit last winter, side by side with Easter Beurré, while there was no perceptible difference in *flavor and quality*, the Doyenné d'Hiver was different in form from any specimens of Easter Beurre I had seen, having a small distinct *neck* or taper to the stalk, like the Glout Moreau, and was *very regular* in shape. Very respectfully, *J. J. Thomas. Macedon, N. Y., 6mo. 19, 1848.*

[We understand that a conference is going on between the Massachusetts and Pennsylvania Horticultural Societies, and the American Institute, respecting the time and place of holding a great Pomological Convention, which has been in contemplation for some time. Both Mr. HANCOCK's and Mr. THOMAS' suggestions will, no doubt,

along with many others, receive consideration. We shall probably be able to announce the time fixed in our next number. Ed.]

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THE CHARACTER OF THE STRAWBERRY.—*Mr. Downing:* Your correspondent, (Dr. VALK) in the last Horticulturist, attempts to set this question at rest; but makes, I think, quite a mistake by referring to accidental causes, facts which belong to fixed laws. In the last clause of his article he says that, "the dæmonious character of some species and of all varieties, is the result of accident, rather than fixed laws." From a long and careful investigation of this question, in which a great number of species and varieties has come under my observation, for, besides having access to the extensive collections in the nurseries, I cultivate from two to three acres of the most approved kinds, I have deduced the following facts or laws:

1. Whether plants growing wild or those raised from seed be examined, there will generally be found some *hermaphrodite*, that is with both *pistils* and *stamens* developed; and others *pistillate*, or having no perfect stamens.

2. These two kinds being increased by runners do not vary their characters.

3. Hermaphrodite plants will bear fruit by themselves, being furnished with both *pistils* and *stamens*, though possessing various degrees of productiveness.

4. *Pistillate* plants will not bear fruit, unless impregnated by others having stamens, but when thus impregnated are usually very productive.

These propositions, which embrace the whole matter at issue, being universally true, must be considered as general and not accidental laws.

It does sometimes happen that a few blossoms of an hermaphrodite plant prove defective in *stamens* or in *pistils*, by abortion, but the general character of the plant is never changed.

In regard to plants perfect in both organs, it may be observed that the *stamens* and *pistils*, in different varieties, bear very variable relations to each other. In some the receptacle is full and perfect, and the fruit sets with some degree of certainty, while in others the receptacle is small or otherwise defective, and the blossom liable to blast.

The above views, or rather facts, are the deductions of experience and observation, and agree, I believe, with those of Mr. LONGWORTH.

After the fruiting season is over I intend to make some remarks upon the comparative value and qualities of many different varieties lately brought into notice. *G. W. Huntsman. Flushing, May 11th, 1843.*

[We shall be glad to receive Mr. Huntsman's further remarks. He is a careful observer. Ed.]

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CHERRY TREES AT THE SOUTH.—*Dear Sir:* I noticed your directions, in the very first number of this Journal, to those who had failed in raising the finer varieties at the south. I immediately (Aug. 1846) set about sheathing my trees with straw, extending it some distance up the larger limbs. The next autumn I also made a new plantation of the best tender varieties, putting, as recommended, on the north side of a fence and building.

I think it will be quite a boon to those of us who

have hitherto failed with this tree. I already observe a very marked difference between those trees left fully exposed to the climate and those covered with straw—among the old trees; and those planted two years ago are usually green and healthy. I had nearly abandoned the cultivation of ail but the Mayduke, and the more common Morellos, owing to the difficulty experienced here, but now hope to cultivate all the best varieties named in your work. Yours, &c. *A. P. Miss., May, 1848.*

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HORTICULTURE AT NASHVILLE, TENN.—As the Horticulturist, among the numerous valuable and instructive articles with which its pages abound, occasionally informs us of the formation of new horticultural societies, I have been induced to forward a slight and imperfect sketch of the commencement and progress of our association, (the *Nashville Horticultural Society*;) and as the plan adopted differs, in many particulars, from any other society I have seen described, the following details may not, perhaps, be devoid of interest:

An attempt to form a society for the encouragement of rural pursuits, and for the improvement of the culture of fruits, flowers, &c. was announced in the year 1844, by a few individuals of this city and neighborhood, who organized and established a horticultural society, hoping, by encouraging exhibitions and awarding premiums, to arouse something of that spirit and enterprising improvement so apparent in the more northern and eastern states; but in consequence of the indifference manifested by those engaged in the culture of the soil, the society met with very indifferent success. It then became evident that a course must be pursued which would exhibit the advantages derivable from such associations in a clearer light.

To effect this purpose, the society obtained of the State Legislature a charter, enabling it to hold property, as a corporate body. A stock book was opened for subscriptions of shares, at fifty dollars each, and the constitution remodelled, making it obligatory for each member to be owner of at least one share of stock. A sufficient amount having been subscribed, the society purchased a beautiful lot of ground within one mile of the city, which is arranged so as to form a *nursery*, into which are being introduced the finest varieties of trees, fruits and flowers, and the remaining portion appropriated as a pleasure garden and grounds. This is now the resort of members, their families, and visitors invited by them. The green-house was completed and stocked with plants last autumn, and others are in progress. A cottage, in the rural or English gothic style, has been built, in the construction of which your works were advantageously consulted. The cottage contains three rooms, for the gardener's accommodation, and devoted to a library and the reception of those visiting the garden. The society will be obliged, for some time, to dispose of a sufficient amount of plants and fruit trees to meet, (with a small annual subscription,) the current expenditure; but we hope, ere long, our more wealthy citizens may be impressed with some portion of that intelligent taste and energy which are, in the Eastern States, converting even their bleak coasts into fruitful gardens. Such a

spirit would enable the society to become in reality an association for the acquisition and diffusion of horticultural knowledge. I remain, very respectfully, your obedient servant. *William Prichard.* Nashville, May 30, 1848.

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A WORD FOR BOTANISTS ON THE "GREAT STRAWBERRY QUESTION.—This subject is getting to be nearly as *prolific* in disputes as the plants themselves are in berries—so that, ultimately, they will become as "plenty as blackberries." In the elaborate report of the Cincinnati Horticultural Society, on the strawberry, lately published, poor systematic botanists come in for a full share of reproach on this *fruitful* subject. In their 4th postulate, they say: "That nearly all botanists, (and among them our most enlightened modern writers,) have overlooked the important error of Linnæus, and have simply copied after him, without verifying for themselves," &c. Now this unmerited taunt is severe, because "enlightened botanists" do not claim entire exemption from liability to error. Admitting the charge of error and ignorance, on the part of the great Linnæus and enlightened botanists, to be true, is the severity of the taunt deserved, when so much of the progress of Horticulture and Floriculture, is due to the untiring zeal and unrequited industry of the systematic botanist? All the pay that the enlightened botanist expects, for the laborious explorations of the wide fields of truth, in his favorite branch of investigation, is the consciousness of adding his mite to the general stock of science, and the promotion of the cause of truth. That he may commit errors, or that his investigations may be unsatisfactory, for want of opportunities of carrying them on successfully, is conceding to them no more than is incident to the fallibility of all human speculations. Unfortunately for the theory, (for it is nothing but a theory,) of these visionary men, LINNÆUS and his humble followers are not mistaken, nor in error, with regard to this peculiarity of the plant in question. It is not a *diæcious* plant in a state of nature, (the only question upon which the botanist is called upon to decide,) and, so far as my observations extend, it is not so with the cultivated varieties. Metamorphoses of vegetables, from peculiar habits and cultivation, take place so readily, that botanists have long since ceased to depend on cultivated specimens as types for description, as being too uncertain and variable for scientific purposes. Prof. GRAY, who is the best authority on vegetable organography in this country, holds the following language on this subject: "Separated or *diclinous* flowers are termed *monœcious*, when the staminate and pistillate are both produced by the same individual plant; as in the Indian corn or maize, *carex*, the birch, the oak, beech, hazel, hickory, &c.; and they are called *diæcious* when borne by different individuals; as in the willow and poplar, in *Ceratiola*, the hemp, hop, &c. In many cases, while some of the flowers are staminate only, a portion are perfect, the different kinds occurring either on the same or different individuals; as in most palms, in many species of maple, in *Veratrum* &c. plants with such flowers are said to be *polygamous*." (*Gray's Botanical Text Book*, page 117.) Now the strawberry plant, in a state of nature, and in its cultivated aspects, so

far as I have observed, does not exhibit the characteristics of *diclinous* flowers. I have observed in many plants, both wild and cultivated—and among them Hovey's seedling—a state that Mr. LONGWORTH and his coadjutors call staminate and pistillate. But in every case that I have observed, the pistillates have stamens, though probably not developed sufficiently to perform their associate functions, and hence their infertility; and also in what are called staminates, the pistils are always present, although from some cause their barrenness is probably produced by an undeveloped, an accidental abortion, or a diseased state of the pistilliferous organs. Almost all kinds of fruit are subject to the same accidents, and some varieties more than others, which renders them more or less productive, according as they are more or less affected with this deficiency. One *positive fact* is worth more on scientific, as well as legal questions, than a thousand *negative facts*, and the positive statements of Mr. DOWNING, with regard to the change produced by time and cultivation on his beds of Hovey's seedlings, is worth more to my mind than a cart load of the *reasonings* of the Cincinnati Horticultural Society. Indeed, the manner in which they meet these facts, is evincive that they are aware of the weakness of their position. Listen to them one moment. "This effect of change from productive beds, (of pistillates,) to unproductive beds of 'blind plants,' may be readily accounted for in several ways: admitting that the bed was originally composed of the runners from one individual plant of a pistillate variety, we all know that some berries will be left upon the ground, when the seeds germinate and are likely to produce staminate plants."

The "*admission*" that they require, is refuted by the positive fact recorded by Mr. DOWNING, and their fine spun theory is necessarily demolished. Their "ifs and ands," and "may bes," therefore, must fall to the ground. They are careful to impress upon us the idea that there are "*several*" ways of accounting for the results of Mr. DOWNING's experiments, yet the one above quoted, requiring a fatal admission, is the only one in a long article upon this subject, brought forward to sustain them in their position. Although nature is said to be a master workman, we know that there are many circumstances, occurring in a thousand instances, tending to thwart her in her accustomed operations. There are hundreds of instances, where the seeds of vegetables are blighted from the abortion, either of the stamens or pistils, (and one is as fatal to fertility as the other,) under circumstances which can not readily be accounted for, from the very simple reason that we do not know what they are. Fruits of every kind, are known to drop, some seasons, after they are apparently perfectly set, without our knowing the cause, and consequently not being able to account for the fact. Such is the fact also with the strawberry; some varieties, and seasons, and situations, rendering it more liable to accidents of this kind than others. From a consideration of these and many other circumstances, that might be enumerated, did the limits of your useful Journal allow, it does appear ungenerous, as well as unjust, to charge upon the botanist the errors—if we may so call them—of nature, which is obviously evinced throughout the whole vegetable kingdom. That

the skillful horticulturist can, in many instances, partially amend the defects of nature, is a fact too well established to be controverted, and redounds credit to his sagacity, industry, and perseverance. If the beauties and excellencies of the heart-inspiring art of horticulture were at the stand, at which nature had resigned it into the hands of the scientific artist, it would have been doubtful whether the Cincinnati society had been in existence at this time, to taunt the humble followers of LINNÆUS with ignorance and inattention to the great laws of nature. *J. M. B. Lancaster, May 21st, 1848.*

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THORBURN'S EXOTIC NURSERY.—*Sir*—In visiting the Nursery Garden, lately of Messrs. THORBURN, at Astoria, I found a great variety of beautiful plants in bloom, roses in great profusion, and many new and fine sorts of geraniums, *punica granata*, very showy and worthy of cultivation, as it flowers freely on open walls in England, and only requires protection in severe frost; a great many fine plants of new Fuchsias, which deserve to be cultivated by every amateur: now or next month is a good time to turn them out of pots on a shaded north aspect, in a loamy soil, and they will continue to flower until November. It is to be regretted that this class of plants are not more grown, as nothing is more simple of cultivation, and nothing more graceful than their habit of growth with their beautiful pendulous flowers. I observed a great many fine plants of *Ipomea learii*, which flowers so well in this climate, as also *clianthus puniceus* and *ecremocarpus scaber*, both partially hardy, abundant bloomers, and very pretty, and only require to be known to be appreciated. *A Practical Gardener. New-York, June, 1848.*

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PERPETUAL ROSES.—Many cultivators of this fine new class of roses "waste its sweetness" by allowing it to carry all its blossoms in the month of June. Now to have the perpetual rose fully enjoyed, it should not be allowed to bloom at all in the *rose season*. Roses are so common then that it is not at all prized, while, blooming from mid-summer to November, it is highly prized by all persons.

The way I pursue to grow it in perfection, is to *pinch out*, as soon as visible, every blossom-bud that appears at the first crop, say from the middle of May to the middle of June. This reserves all the strength of the plant for the after-bloom; and accordingly I have such clusters of roses in July, August, September and October, as those who have not tried this stopping system can have no idea of. *La Reine, Madame Laffay, Comte de Paris*, and the *Dutchess of Sutherland*, are particularly superb varieties under this treatment. Indeed, they may be recommended as among the best of the perpetuals.

I have adopted, with excellent results, Mr. RIVER's recommendation of giving the roots of well established roses a good soaking of liquid guano, after they have shed their leaves, say middle of Oct. It greatly promotes their luxuriant growth the next season. Yours. *An Amateur. New-York, June, 1848.*

ANSWERS TO CORRESPONDENTS.

EVERGREENS.—*A new Subscriber*, (Philadelphia.) It is difficult to distinguish the true Norway Spruce, while quite young, from the varieties raised from seed and frequently imported and sold along with it in the nurseries. The true sort, however, may be detected by the practiced eye, and has longer leaves, and a more vigorous habit than the spurious seedlings. Sometimes the White Spruce of this country is found intermixed with seedling Norway Spruces imported from Great Britain. When the Norway Spruce begins to produce cones it is readily distinguished by any person, the latter being peculiarly long and narrow. *R. L.* Evergreens of most kinds are easily propagated by planting them in sand under a bell glass, or covered by a common hot-bed light. They must be partially shaded. For the white Aphis, which infests the young growth of this tree, try sprinkling with whale-oil soap.

GREEN-HOUSE.—*C. D. C.* (Lebanon, Pa.) The best angle for the roof of a green house; in this latitude is 45°; 40° will, however, answer. For a small green house no mode of heating is so simple and economical as the old-fashioned brick flue. When once heated, it retains and gives out warmth for a long time, and the fire usually needs no attention after 10 P. M. Tiles for covering the flues may be had at the Salamander Works, Cannon st., New-York.

RASPBERRIES.—*W.* (Cattskill, N. Y.) The true Red Antwerp is easily known from the spurious one by its large size and peculiarly conical or pointed berry. A liberal top-dressing of wood ashes, every autumn or spring, greatly invigorates the plants. The *Fastolf* is very large, but is not so firm, and does not bear carriage so well as the Red Antwerp. Mr. RIVER's *New Everbearing* is in the country, but will scarcely be offered for sale, except by those importing the coming autumn. We have one plant now in fruit, but the latter not yet mature. See the remarks of a Philadelphia correspondent on the culture of the Raspberry, in a preceding page.

STRAWBERRIES.—*Johnson.* (Baltimore.) New beds may be made as soon as the runners can be obtained with sufficient roots—perhaps immediately with you. *Willey*, (or more properly *Wiley*), is a pistillate variety, and a very great bearer. The *Large English Scarlet* produces more regular crops than any variety we know. Trench your soil 2½ feet deep, and put it in good condition, and you will find no difficulty in producing abundant crops on your soil.

VINERIES.—*E. D.* Your grapes are probably suffering from the want of sufficient moisture in the border. When a border is, like yours, wholly *inside*, it requires constant attention to keep it sufficiently moist. We would advise you to prepare an additional border on the outside, and provide openings in the front wall for the vines to run

through. Outside borders are much better for cold vines, in this climate, than those on the inside.

BOOKS.—*A Constant Reader.* Mrs. Loudon's new vol. on "Green-house plants," with colored plates, to match her "Annuals," &c., is just published, and may be had of JOHN WILEY, 161 Broadway, N. Y. The subscription to Van Houtte's "Flora des Serre," is 36 francs. A new edition of Michaux's Forest Trees is, we understand, soon to be published in Philadelphia.

HEDGES.—*H. R. (Pittsburgh.)* The best hedge plant for you is probably the Osage Orange. It will be offered in abundance by nurserymen next spring. The Newcastle or Cockspur thorn has an entire leaf, the upper side of which is very glossy. Always cut hedge plants to within 4 or 6 inches of the ground, on planting them.

FUCHSIAS.—*W. V. P.* Our correspondent has failed from not understanding their habits. They require a damp atmosphere, shaded situation under glass, and should be watered or syringed over the leaves at least once a day. *Fuchsia globosa* is almost the only one that we know that will flower freely in the open border.

ROSE BUGS.—*An Inquirer.* Nothing better than handpicking and "war to the knife," is yet known as a means of lessening this insect, so troublesome in some parts of the country. Would it not be well for some of our leading Hort. Societies to offer a special premium of \$100 for some more speedy method. In a letter just received from Mr. ELLIOTT of Cleveland, we find the following:—"Rose bugs abound with us this season. Shaking the trees just at night, over a sheet is the best course I have pursued to prevent their ravages."

CHERRIES.—*F. R. Elliott.* (Cleveland.) We

also think the Elton and Flesh col'd Bigarreau will probably prove identical. The similarity in the fruit has struck us for seasons past, but we are not yet prepared to speak confidently. *W. H. (Boston.)* The most valuable cherry, all things considered, is Downer's late. *Bowyer's Early Heart*, and *Arden's Early Heart*, both prove identical with the old *Early White Heart*, and River's Early Amber, seems from examination of a few specimens, not unlikely to be the same variety. *Belle Magnifique* is a valuable, very late cooking cherry.

PLUMS.—*Williams.* (New-York.) The *Jefferson* is certainly the first of plums. Even the English, slow to believe in American fruits, admit that its flavor equals that of the Green gage. Take up your plum trees in winter, with frozen balls of earth, and move them to a part of your ground where you can make a swine and poultry yard about them. This is the only infallible remedy in a curculio district. The most productive plums in light soil, are *Lombard*, *Cruger's Scarlet*, *Smith's Orleans*, and *White Damson*.

ROSES.—*A Novice.* (New Bedford.) You may bud roses immediately. Layers should be made before the middle of July, and the ground covered with moss or straw, to keep it moist, or otherwise watered every evening. *Solfaterre* is now considered by many growers, a finer noisette than *Cloth of Gold*.

* * * Correspondents who are subscribers, will hereafter find replies to any question on subjects within the scope of this journal, in this department, (unless otherwise requested)—and all queries put in a brief shape, and sent to us free of postage, shall receive attention.—*Ed.*

MASSACHUSETTS HORTICULTURAL SOCIETY.

Weekly Exhibitions—May 20th.

FLOWERS.—From M. P. WILDER, a collection of hardy flowering shrubs; among them *Carragna Chembing*, *Spirea Douinii*, (new and fine,) new Ghent Azaleas, several varieties of Lilac and *Pæonia arborea papaveracea plena*. A large quantity of Noisette, Lamarque and Solfaterre roses; four plants of beautiful *Ericas*, *Azalea indica Gledstanesii*, a fine seedling *Camellia*, &c. From N. J. BEAR, Esq., corresponding member of the society, New-York, a great variety of beautiful *Calceolarias*, mostly collected by him in Europe; also *Pelargoniums*. The flowers arrived in excellent condition and were universally admired. From J. BRECK & Co., a great variety of Tulips and other cut flowers. From A. BOWDITCH, beautiful *Anemones* and other cut flowers; also seven pot plants. From S. WALKER, fine *Ranunculus* and other cut flowers. From *Nonantum Vale*, by John Cadness, cut flowers, including fine Tulips, bouquets, and a plant of *Calistegia pubescens*, a new and beautiful climbing plant, with double rose coloured flowers of the *Ipomea* or *Convolvulus* tribe. From G. C. CROWNSHIELD, by John Quant, six pot plants, including a fine specimen of *Brachycome iberidifolia*. From *Winships*, two fine bouquets. From A. ASPINWALL, a splendid display of roses. From *William Kenrick*, by Miss Russell, cut flowers, including a profusion of *Pæonia*

arborea, a large bouquet and basket of flowers. From *Hovey & Co.*, *Pelargoniums*. From *James Nugent*, bouquets. From O. EVERETT, a fine plant in bloom of *Echinocactus Eysenii*. From J. KING, Dedham, *Cereus flagelliformis* and *Cactus epiphyllum*. From *John Kenrick*, a basket of flowers.

AWARD OF PREMIUMS.

TULIPS.—For the best 30 dissimilar blooms, to John Cadness, \$8. 2d best do., to Joseph Breck & Co., \$6. 3d best do., to S. Walker, \$3.

POT PLANTS.—For the best six plants, to John Quant, \$2. 2d best do., to Azel Bowditch, \$1.

Wm. Quant, James Nugent, John Quant, Judges on Tulips. William Quant, James Nugent, W. B. Richards, Judges on Pot plants.

The Committee award to Winships, 1st premium on Parlor Bouquets, \$2. A. Bowditch, 2d do., \$1.

For the best Vase Bouquet, 1st premium to A. Bowditch, \$2. John Cadness, 2d do., \$1.

The Committee recommend a gratuity to John Cadness, for a plant of *Calistegia pubescens*, \$3.

To Joseph Breck & Co., for a fine display of Tulips, \$3. They award to N. J. Bear, Esq., the Society's Silver Medal, for a great variety of beautiful *Calceolarias*.

JOSEPH BRECK, Ch'n Flower Committee.

FRUIT.—Grapes from *T. H. Perkins*, by *W. Quant*, fine specimens of Black Hamburg and Muscat of Alexandria. Also nine varieties from *J. F. Allen*, of Salem,—the Black Hamburg and Grizzly Frontignan were well coloured and fine specimens *S. WALKER*, Ch'n.

VEGETABLES.—*T. H. Perkins*, by *William Quant*, very fine Asparagus. *G. C. Crowninshield*, by *John Quant*, two brace Cucumbers. From *John Hull* Asparagus and Rhubarb, very fine, presented too late for premium.

A. D. WILLIAMS, Jr., Ch'n.

Exhibition of May 27th.

FLOWERS.—From *M. P. Wilder*, Pot Plants: *Erica Bowiana*; five seedling *Azalea indica*, Scarlet, white striped with red, &c., and *Azalea indica* Gled-stanleyi. Cut flowers, Tree Peonies; Grand Duke de Bade, Monstreuous, alba plenissima, Banksia, Papaveracea, and Reine de Belgique; *Rosea superba*, and *Rococco*, new imported varieties from Germany: *Rosea superba* is very splendid, of a fine deep red colour—the best new variety yet introduced. Also a profusion of hardy *Azaleas*, double flowering Hawthorns, *Pelargoniums*, *Noisette roses*, &c. From *J. L. L. F. Warren*, by *John Cadness*, Plants of *Rhododendron ponticum* and *Azaleoides*, *Anigozanthus coccineus*, four seedling *Cinerarias*, and three *Calceolarias*; also cut flowers, including a variety of fine Tree Peonies, *Rhododendron*, *Azaleas*, Hawthorns, &c. From *A. Aspinwall*, a large collection of fine roses and bouquets. From *E. Wight*, cut flowers. From *Edward S. Rand*, Dedham, a handsome bouquet of indigenous flowers, composed of *Arethusa bulbosa*, *Cypripedium acaule*, *Sarracenia purpurea*, and *Convallaria bifolia*. From *T. H. Perkins*, by *William Quant*, six pot plants and two mantle bouquets. From *William Meller*, cut flowers and mantle bouquets. From *J. Breck & Co.*, a great variety of Peonies and other cut flowers. From *Wm Kenrick*, by *Miss Russell*, a great number of Tree and other Peonies, cut flowers, and one large bouquet. From *John A. Kenrick*, by *Miss Kenrick*, *Wistaria sinensis*, hardy *Azaleas*, double flowering Hawthorns, Peonies, and other cut flowers. From *Samuel Downer, Jr.*, *Rhododendrons*, hardy *Azaleas*, &c. From *Parker Barnes*, Pansies, seedling *Verbenas*, &c. From *E. M. Richards*, *Arethusa bulbosa*, *Sarracenia*, &c. From *James Nugent*, one large vase bouquet. From *Azel Bowditch*, fine Anemones, Pinks, and bouquets. From *Hovey & Co.*, *Ranunculus*, Pansies, *Azaleas*, 20 varieties, Hawthorns, &c. From *S. Walker*, fine *Ranunculus*, and other cut flowers. From *Messrs. Winship*, a great variety of cut flowers, including *Azaleas*, Hawthorn, &c. &c.; also two fine mantle bouquets.

AWARD OF PREMIUMS.

SHRUBBY PEONIES.—First premium to *John Cadness*, \$5. For the best display to *Joseph Breck*, \$3.

Hardy *Azaleas*, for the best display to *Hovey & Co.*, \$3. 2d best do., to *Winships*, \$2.

Pansies, no premium awarded.

William Quant, *John Donald*, *James Nugent*, Judges

BOUQUETS.—For the best vase bouquet, to *James Nugent*, \$2. 2d best do., to *A. Bowditch*, \$1. For the best pair of mantle bouquets, to *William Quant*, \$2. 2d best do., to *Winships*, \$1.

POT PLANTS.—For the best six, to *William Quant*, \$2. 2d best do., to *John Cadness*, \$1.

Alexander McLennan, *R. M. Copeland*, *Joseph Breck*, Judges.

The Committee recommend gratuities to *Samuel Walker*, for display of *Ranunculus*, \$3. To *A. Bowditch*, for displays of *Anemones*, \$3.

JOSEPH BRECK,

Chairman Flower Committee.

VEGETABLES.—From *Mrs. Spaulding*, Rhubarb. From *John Cadness*, blanched stalks of *Victoria Rhubarb*. From *T. H. Perkins*, by *William Quant*, *Victoria Rhubarb*—two stalks weighing 3 lbs 8 oz. From *Mrs. Pratt*, by *Alexander McLennan*, *Victoria Rhubarb*—two stalks weighing 3 lbs 4 oz. From *G. C. Crowninshield*, by *John Quant*, a brace of Cucumbers.

A. D. WILLIAMS, Jr., Ch'n.

Exhibition of June 3d.

FLOWERS.—From *M. P. Wilder*, *Pæonia phœnicea* plena and *P. rosa superba*, (new); *Spiræas*, *Azaleas*, &c. From *G. L. Crowninshield*, by *John Quant*, six pot plants. From *William Kenrick*, by *Miss Russell*, one large bouquet,

Pæonies, and other cut flowers. From *Joseph Breck & Co.*, cut flowers in variety. From *Nonantum Vale*, by *John Cadness*, cut flowers, including *Rhododendrons* and other fine plants. Six hand bouquets, &c. From *Winships*, one pair of mantle bouquets. Double flowering Hawthorns, *Azaleas*, *Pæonies*, and a great variety of other cut flowers. From *Hovey & Co.*, twelve plants of *Pelargoniums*, fine varieties. From *O. H. Mathers*, by *Thomas Needham*, a variety of cut flowers. From *William Meller*, two mantle bouquets, and cut flowers. From *John A. Kenrick*, a fine display of *Azaleas*, *Laburnums*, and other cut flowers. From *James Nugent*, beautiful *Spiræas*, and other cut flowers, and one large vase bouquet. From *A. Bowditch*, one large vase and four hand bouquets. From *M. Tidd*, *Wolurn*, a seedling *Cactus*, a hybrid between *Epiphyllum Ackermannii* and *Cactus Speciosissima*—a fine plant. From *Joseph Stetson*, South Canton, a bouquet, composed of indigenous plants.

AWARD OF PREMIUMS.

BOUQUETS.—For the best pair of mantle, to *William Quant*, \$2. 2d best do., *Winships*, \$1. For the best vase bouquet, to *James Nugent*, \$2. 2d best do., *Azel Bowditch*, \$1.

John Quant, *R. M. Copeland*, *John Donald*, Judges.
HAWTHORNS.—(Omitted last week.) For the best display, to *Winships*, \$3. 2d do., *John Kenrick*, \$2.

POT PLANTS.—For the best six, to *John Quant*, \$2.

JOSEPH BRECK,

Chairman of Flower Committee.

FRUIT.—Apples from *Ellwanger and Barry*, Rochester, New-York, Northern Spy, very fine specimens. They fully maintained the high character heretofore given to this apple as being the best late keeping apple. Winter Sweet, from *J. B. Moore*, Concord, by *Messrs. Hovey & Co.* Grapes from *J. F. Allen*, Salem, nine varieties; some of the specimens fine. *J. S. CABOT*, Ch'n.

VEGETABLES.—From *Josiah Lovett* 2d, *Victoria Rhubarb*, 12 stalks, 21 lbs.; seedling *Rhubarb* of 1847, that was superior to any exhibited, 3 stalks, 7 lbs.; seedling *Rhubarb* of 1848, fine. *J. L. L. F. Warren*, *Victoria Rhubarb*. *John Kenrick*, *Victoria Rhubarb*; 12 stalks, 18 lbs 4 oz.

A. D. WILLIAMS, Jr., Ch'n.

Exhibition of June 10th.

FLOWERS.—From *John Kenrick*, a fine assortment of beautiful flowering shrubs, including *Azaleas*, *Laburnums*, &c. From *Winships*, one of the large circular stands filled with a profusion of showy herbaceous and shrubby flowers, and two bouquets. From *William Kenrick*, by *Miss Russell*, cut flowers in variety, and one large bouquet. From *Nonantum Vale*, by *John Cadness*, a variety of cut flowers, bouquets, and eight pot plants, some of them rare and curious. From *Wm. Mellar*, Bouquets, and cut flowers. From *James Nugent*, bouquets. From *Azel Bowditch*, bouquets. From *S. Walker*, cut flowers. From *Solon Dike*, *Stoneham*, cut flowers. From *John Dunclee*, specimens of *Liriodendron tulipifera*. From *Hovey & Co.*, cut flowers of *Breck's Pelargoniums* in variety; *Pæonia Pottii* and other sorts, *Rhododendrons*, &c. From *Breck & Co.*, cut flowers, as usual.

AWARD OF PREMIUMS.

BOUQUETS.—Vase, 1st prize to *James Nugent*, \$2. 2d do., *A. Bowditch*, \$1. Mantle, 1st prize to *Winships*, \$2. 2d do., *Wm Mellar*, \$1.

POT PLANTS.—For the best six, to *William Quant*, \$2. 2d do., *John Cadness*, \$1.

The Committee recommend a gratuity to *John Cadness*, for rare plants, \$2. To *Miss Russell*, for large bouquet, \$2.

JOSEPH BRECK,

Chairman of Flower Committee.

FRUIT.—From *J. F. Allen*, Grapes—White Frontignan, Black Hamburg, Grizzly Frontignan, fine and well coloured, and Zinfandel; Figs—Black Fig of St. Michael, fine and well ripened. From *Nahum Stetson*, *Bridgewater*, Figs—Brunswick, very large. From *J. Owen*, Boston Fine Strawberries. *D. HAGGERSTON*, Ch'n.

VEGETABLES.—From *J. H. Perkins*, by *William Quant*, Lettuce. From *A. D. Williams*, *Rhubarb*.

A. D. WILLIAMS, Jr., Ch'n.

Business meeting, June 3d, 1848. President MARSHALL P.

WILDER in the Chair. A letter was received from Edward Bartlett, Esq., accompanied with seed of the original potatoe, grown in Peru; and it was voted, that the thanks of the Society be presented to Edward Bartlett, Esq., and the seed placed in the hands of the Committee on vegetables, for distribution among the members of the Society.

The subject of holding a festival at the close of the present season, having been discussed, it was voted that the whole subject be referred to the Committee of Arrangements, with instructions to report at the next meeting.

The following gentlemen were elected members of the Society: Mark Healy and Thomas Morgan, Boston; Lyman Kinsley, Canton; John King, Dedham; Henry P. Haven, New Haven, J. W. Brown, Beverly; H. K. Moore, Chelsea; John M. Gourgas, Quincy.

Business meeting, June 17th, 1848. President **MARSHALL P. WILDER**, in the Chair. Several copies of the report of the committee of the Cincinnati Horticultural Society, on the Strawberry, were received from A. H. Ernst, Esq., and it was voted that the thanks of the Society be presented to Mr. Ernst.

The Com. of arrangements, to whom was referred the subject of a Festival, reported that they recommend the holding of a Festival at the close of the annual exhibition in September next, and that both the Exhibition and Festival should take

place in Fanueil Hall, if said edifice can be obtained for this purpose.

Resolved, That the President, Vice-Presidents, and Secretaries, be added to the Committee of Arrangements, as a committee to manage all matters pertaining to the Festival.

Resolved, That the Committee thus constituted, have full power to appoint marshals, and to call in such other aid as they may deem expedient.

Mr. Breck, as chairman of the committee on Flowers, gave notice of the postponement (on account of the lateness of the season,) of the Rose Exhibition until Saturday, the 24th inst.

On motion of Mr. S. Walker, it was voted, that whereas an invitation has been extended to this Society, by the New-York State Agricultural Society, to send delegates to a Pomological Convention to be held in Buffalo in September next, and whereas a call has been made through a public medium, by a member of the Penn. Hort. Society for a similar meeting, and also an application from the American Institute, that such a convention should be held in the city of New-York in October next, therefore, *Resolved*, that a committee of three, consisting of the President, and two others be appointed by the chair, to correspond with the above named parties, and report at a future meeting, what, in their opinion, is DESIRABLE to be done in the matter.

The Chair appointed Messrs. Secretary Walker, and Eben Wight.

E. C. R. WALKER, *Rec. Sec'y.*

ALBANY AND RENSSELAER HORTICULTURAL SOCIETY.

The Albany and Rensselaer Horticultural Society held their first exhibition for the season in the large room of the Geological Buildings, on Wednesday, the 14th instant, **JOEL RATHBONE**, Esq., President of the society, in the chair.

The show was all that the most sanguine friends of horticulture could desire, and the Hall was crowded with ladies and gentlemen during the day.

B. P. JOHNSON,
Secretary.

FRUIT.—The Committee on Fruit reported that there was exhibited—

By Joel Rathbone, of Kenwood, Cincinnati Pine and Virginia Scarlet Strawberries. The Cincinnati Pine is a variety from the west, said to be prolific and hardy, and without being of first character, is a desirable acquisition.

By Volkert P. Douw, of Wolvenhook, Greenbush, Iowa and Ross Phoenix Strawberries.

By Dr. John Wilson, of Bethlehem, White Alpine, early Virginia Scarlet, and Black Prince Strawberries.

By E. P. Prentice, of Mount Hope, Ross Phoenix, Virginia Scarlet, Bishop's Orange, early Scarlet and Hovey's Seedling Strawberries.

By Dr. Herman Wendell, Boston Pine, Iowa, Ross Phoenix and Hovey's Seedling Strawberries; also, foliage, flowers and unripe fruit, of the new and much talked of Aberdeen Beehive; but the plants, having been imported this season, were not sufficiently strong to develop the fruit, so that the committee might be enabled to judge of its true character.

By B. B. Kirtland, of Greenbush, Iowa Strawberries, of beautiful appearance.

By Luther Tucker, of Hope Cottage, Bethlehem, Royal Scarlet,—a fine variety, of beautiful appearance, much resembling the Ross Phoenix, and Stoddard's Washington Alpine Strawberries.

By Jacob Henry, of Watervliet, Early Virginia Scarlet Strawberries.

By E. Wickes, of Albany, Royal Scarlet and Iowa Strawberries; the latter is a variety recently introduced from the west; it is prolific, hardy, agreeable in flavor, large in size, and beautiful in appearance, but will not bear transportation, as it becomes soft, and it does not possess the high flavor of many of the older and favorite varieties.

The committee award the first premium of \$2 to Volkert P. Douw, of Greenbush, for beautiful specimens of Ross Phoenix; and the second premium, of \$1, to E. P. Prentice, of

Mount Hope, for well grown and beautiful specimens of Bishop's Orange, a well known favorite variety.

In coming to a decision as to the merits of the respective varieties, the committee took into consideration the size, flavor and general appearance of the specimens offered for competition.

HERMAN WENDELL,
B. B. KIRTLAND,
WM. BUSWELL,
Committee.

PLANTS AND FLOWERS.—The Committee on Green House Plants and Flowers report that there were exhibited by Joel Rathbone, of Kenwood, Pelargoniums in pots, Bridgroom, Dowager Queen, Victoria, Garth's Perfection, Duchess of Kent, Anson's Superb and Imperial, Fuchsias, Cocinea, Globosa, Fulgens, Venus Victrix, Multiflora, Emeli Perfecti, Passiflora, Loudonii, Stapelia variegata, Burchellea, &c., twelve distinct varieties of Picotee pinks and several varieties of roses; among them were Solferatte, La Reine, Prince Albert, Rivers, Souvenir de Malmaison, &c. &c.

By V. P. Douw, of Greenbush, several varieties of pansies, eight varieties of Picotee pinks, and a large number of choice roses, a list of which were not handed to the committee.

By Dr. Herman Wendell, twenty-five different varieties of roses; among them were Madam Lafay, Gen. Dubourg, Dr. Roques, Prince Albert, Great Western, London Pride, Fulgens, George the 4th, Henry Plantier, Souvenir de Malmaison, Tuscan Palagii, Luxembourg moss, Cristata moss, Old Blush moss, Persian Yellow, &c. &c.; Phloxes Van Houtii, Grato and Suaevelens, Philadelphus multiplex, several varieties of pansies, Paisley pinks, Paeonies, Lady Hume and Roseum fragrans, &c. &c.

By James Wilson, seventy-five varieties of roses; among them were Persian Yellow, Donna Sol, Marjolin, George the 4th, Madam Hardy, Queen Leda, Princess Lamballe, Great Western, La Tour d'Auvergne, Leopold, Washington, London Pride, Nelly, Pompon Bicolor, Cerise Superba, Village Maid, Cristata moss, &c. &c. Twenty varieties of Pansies, three varieties of Daisies, red and white Fraxinella, Clematis erecta and Integrifolia, perennial Indian poppy, Pyrethums, Paeonies, Humii, Fragrans, Potsii, Reevesii, &c.; six varieties of beautiful Rocket Larispurs, twelve varieties of Verbenas, six varieties of Petunias, Phloxes Maculata, Van Houtii, Suaevelens, and a large and beautiful collection of perennial and biennial flowers.

Charles H. Merritt, of Troy, twelve varieties of roses, viz: White Unique Moss, Cristata Moss, Striped Unique, London Pride, Pink Moss, Madam Hardy, Royal Greatness, Lord Nelson, Lanesseur, Queen of France, &c.; ten varieties of Verbenas, and also a collection of perennial flowers.

Henry Vail, of Ida Farm, Troy, a large collection of beautiful Pæonies.

Wm. H. DeWitt, Albany, Royal Provence, George the 4th. Provence, and York and Lancaster roses; Red Maroon and Sulfurea dahlias; several varieties of Sweet Williams; Canterbury bells, and Pæonia Humil.

E. P. Prentice, of Mount Hope, a number of choice roses, Pæonies and other flowers.

Dr. J. M. Ward, a most splendid specimen of Magnolia Macrophylla, grown on his farm in New Jersey, which elicited much admiration from the visitors at the exhibition.

PREMIUMS.—The Committee awarded the premiums as follows:

Roses—For the best exhibition, to James Wilson, \$3. For the best twelve distinct varieties, viz: Persian Yellow, Gen. Foy, Village Maid, Washington, Pompon Bicolor, Cerise Superba, Nelly, Donna Sol, London Pride, Marjolain, La Tour d'Auvergne and Leopold, \$2; for the best six distinct varieties, viz: Cristata Moss, Great Western, Leda, Queen, Danviers, Princess Lamballe, \$1—both to Jas. Wilson.

Pinks—For the best six distinct varieties to Joel Rathbone, \$2. For the best three distinct varieties, to Joel Rathbone, \$1.

Pæonies—For the best collection, to V. P. Douw, \$2. For the best six varieties, viz: Humil, Fragnans, Potsii, Reevesii, Whitejii, and Alba—to Jas. Wilson, \$1.

Pansies—For the best twelve distinct varieties, to Jas. Wilson, \$2. For the best six do., to Dr. Herman Wendell, \$1.

Fuchsias—For the best six varieties in pots, viz: Fulgens, Venus Victrix, Multiflora, Emile's Perfection, Globosa and Coccinea, to Joel Rathbone, \$2.

Annual and Perennial Flowers—For the best display, to Jas. Wilson, \$2. For the best six different varieties of plants in pots, to Joel Rathbone, \$2.

The Committee also award a gratuity of \$1 to Wm. H. DeWitt, for five varieties of beautiful Dahlias.

The Committee cannot close their report without expressing to the society their satisfaction at the beautiful display of choice and rare flowers offered for exhibition, nearly all of which exhibited great skill in their respective growers.

WM. NEWCOMB, Ch'n.

V. P. DOUW,

J. M. LOVETT,

Committee.

FLORAL DESIGNS, BOUQUETS, &c.—The Committee beg leave to report that Dr. Herman Wendell exhibited a large pyramidal floral design, composed of Roses, Pinks, Lilies, Verbenas, &c. &c.; a centre table bouquet, composed of rare Roses, Phloxes, Pinks, Verbenas, &c. &c.; a basket bouquet with handle, composed of rare Rose buds, Pansies, Pinks, Verbenas, Forget-me-nots, &c. &c., on a moss ground, to which the Committee awarded the premium of \$2.

Mr. E. P. Prentice exhibited a large round bouquet for centre table, and composed of Roses, Larkspurs, Pæonies, &c. &c., to which they awarded a discretionary premium of \$1.

Mr. Jas. Wilson exhibited a large flat bouquet for mantle vase, composed of Roses, Hydrange, Larkspurs, Pæonies, Honenuckles, &c.; a flat hand bouquet, composed of Hoyas, Scabious, Epacis, Camellias, Moss Rose Buds, Pinks, Geraniums, &c., to which the Committee awarded the premium of \$1; also a round hand bouquet, composed of about the same varieties, to which the Committee award the premium of \$1.

Mr. Joel Rathbone exhibited two beautiful basket bouquets, with handles, composed of Roses, Pinks, &c.; also a large pyramidal floral design.

Mr. D. T. Vail exhibited a large round bouquet for centre table vase, composed of Roses, Pinks, Larkspurs, Calceolarias, &c., to which the Committee awarded the premium of \$2.

Mr. Wm. Newcomb exhibited a large flat bouquet for mantle vase, composed of a choice collection of rare and beautiful perennial and biennial flowers, viz: Verbenas, ten varieties; Campanula pyramidalis, Pelargoniums, Carnation and Picotee Pinks, Dianthus Barbatas, Loniceras, Sempervivens, and Flexuosum; six varieties of Roses, viz: Red Moss, Burnet, Nigra, and three other varieties; Delphiniums, Elatum, Ceruleum and Grandiflorum, Phloxes, Lilies, Polemoniums,

Reptans, Ceruleum, and Album, Hesperis pleno, Lupinus polyphyllus, Silene regia, Aquilegia variegata, Iris germanica, and Lutescens, Robinia, Hispidia, and Marophylla, Pæonies, Humil, Whitejii, and Fragnans, Lychnis flore pleno, &c. &c., to which the Committee awarded the premium of \$2.

Mr. John Wilcox exhibited a large floral design, of pyramidal shape, and leaning, (after the manner of the Tower of Pisa,) composed of Roses, Lilies, Pæonies, Larkspurs, Pinks, Campanulas, Valerians, Phloxes, &c. &c. &c. \$2

JOHN B. GALE, Ch'n.

ERASTUS H. PEASE,

ABEL FRENCH,

Committee.

VEGETABLES.—The Committee on Vegetables respectfully report, that although the weather for the past month has been very unfavorable to the growth and ripening of all vegetables in the open air, in this vicinity, there was presented quite a respectable show of a number of varieties of very fine esculents in competition for premiums.

V. P. Douw, of Wolvehook, Greenbush, exhibited Landreth's early peas, four very beautiful heads of cauliflowers, (these attracted the attention of all visitors,) some fine heads of Lettuce, Turnip Beets, Giant Rhubarb, and three remarkably large Cucumbers, of a variety called the "Roman Emperor."

E. P. Prentice, of Mount Hope, exhibited Cauliflowers, Turnip Beets, Giant and Victoria Rhubarb, (six stalks of the latter weighing four pounds,) Early Racehorse and Prince Albert Peas, White-spine Cucumbers, (very fine,) Early York Cabbage, and some fine heads of Silesian Lettuce.

Dr. Herman Wendell, of Albany, exhibited some of the Hoo-Sung, a new vegetable, lately introduced from China by the London Horticultural Society, and which, Dr. W. informed us, should—after being stripped of its leaves—be cooked and eaten in the same manner as Asparagus, which the stems in some degree resemble. He also exhibited four new varieties of Lettuce, viz: the Artichoke-leaved, the Malta, the Swedish or Sugar, and the Imperial, and some fine stems of Victoria Rhubarb. The Malta was a remarkably bitter variety, but one which the Committee believe, when eaten as a salad prepared with the proper condiments, will be greatly relished by *bon vivants*. The Artichoke-leaved variety is a curious but very agreeable one. So also is the Sugar and Imperial.

The Committee cannot allow the opportunity to pass without calling the attention of the society to these successful attempts of Dr. Wendell, to introduce new varieties of vegetables from other countries, as worthy of all praise, and highly honorable to him, as a member of the society, and they would recommend that a discretionary premium be awarded him.

Joel Rathbone, of Kenwood, exhibited Giant Rhubarb, Early York Cabbages, Admiral Lettuce, Early June and Racehorse Peas.

D. Thomas Vail, of Ida Farm, Troy, exhibited some very fine heads of Early York Cabbage.

Jacob Henry, of Watervliet, exhibited some very fine early June Peas.

Frederick Kiesel, near the Orphan Asylum, Albany, exhibited early June Peas Turnip Beets, some beautiful heads of Silesian Lettuce, fine double curled Parsley, six heads of fine white Celery, and some white spine Cucumbers.

The Committee recommend that a discretionary premium be allowed Mr. Kiesel for his Parsley, Beets, Cucumbers, and Peas, which were very fine.

James Wilson, of Albany, exhibited six stems of Hybrid Rhubarb, which weighed six pounds.

The Committee have awarded the premiums as follows:

On Beets, to E. P. Prentice, of Mount Hope, \$1.

On Cabbage, to D. T. Vail, of Ida Farm, Troy, \$1.

On Cauliflowers, to V. P. Douw, of Wolvehook, Greenbush, \$1.

On Celery, to F. Kiesel, of Albany, \$1.

On Cucumbers, to V. P. Douw, of Wolvehook, Greenbush, \$1.

On Lettuce, to F. Kiesel, of Albany, \$1.

On Peas, to V. P. Douw, of Wolvehook, Greenbush, \$1.

On Rhubarb, to James Wilson, of Albany, \$1.

C. N. BEMENT, Ch'n.

ROBERT F. JOHNSTONE,

S. CHEEVER, Committee.

PENNSYLVANIA HORTICULTURAL SOCIETY.

The intermediate meeting of the Society was held on the 6th June, on which occasion there was a good display of fruits, some of which were rare for the season; also show of fine Roses and other flowers.

Premiums were awarded as follows:—For the 12 best Rocket Larkspurs, to Anthony Felton; and special premiums for the best Seedling Pink ever shown before the society, a premium of two dollars, to William Hobson; and for the best exhibition of Garden Roses ever presented, a premium of like amount to the same contributor. The committee noticed some fine specimens of Cacti flowers from the collection of the President, and 2 white Rocket plants from William Hobson.

The committee on fruits awarded the premium for the best Strawberries, 2 qts., (Buist's Prize Seedling,) to Robert Dunk of Pasyunk; for the second best do., (Methven Scarlet,) to Isaac B. Baxter; for the best Cherries, 3 pounds, (Mayduke,) to Isaac B. Baxter; for the second best do., (Early Richmond) to William Hobson; and they take pleasure in making favorable mention of seedling strawberries by Isaac B. Baxter and Gerhard Schmitt; also exceedingly high flavored Hautboys, by Anthony Felton, (not 2 qts.) and respectfully recommend a special premium of three dollars for a beautiful display of Black Hamburg Grapes, Peaches and fine Melons.

The committee on vegetables awarded the premium for the best Turneps, to Anthony Felton. The committee noticed a fine display of Sugarloaf lettuce, called "Victoria," and superior early Peas named "Prince Albert," both new varieties, shown by Robert Buist.

OBJECTS EXHIBITED.—Flowers.—By William Hobson, superior Roses of varieties; Hybrid Bourbons, Coup de Hebe, Ernest Ferray, Hortense Leroy and Richelieu—Hybrid China, Charles Fouquier, Chenedale, Compté de Lacedepé, Triomph de la guerre, Cerise, Reine de Roses, and George 4th. Maid of Brussels, Madame Hardy, Adelaide Moss, Luxembourg Moss, River's Crimson Moss, Celina Moss, Happy Surprise, and La Capricieuse. Seedling Pink and White Rockets. By Anthony Felton, Double Rocket Larkspurs. By B. Daniels, gardener to C. Cope, Cut flowers of three cerei (new.)

Fruit.—By Isaac B. Baxter, Strawberries, Methven Scarlet and Seedling; Cherries, Mayduke.

By B. Daniels, Strawberries of varieties: White and Red Alpine and Lafayette Hautboy; Black Hamburg Grapes; Peaches; Melons, var. Great Cabul, Afghanistan, and Ionian.

By Robert Dunk, Strawberries, Buist's Prize Seedling

By Robert Buist, Buist's Prize Strawberry.

By Gerhard Schmitt, Strawberries, a seedling for the first time shown, of much merit, a prolific, fine flavored and rich colored variety, which the committee have named "Moyamensing."

By Wm. Hobson, Strawberries, Hovey's Seedling; Cherries, Early Richmond.

By Anthony Felton, Strawberries, Hovey's Seedling and Hautboy.

By Wm. Hall, Strawberries, Methven Scarlet.

Vegetables.—By Robert Buist, "Prince Albert" Peas and "Victoria" Lettuce.

By Anthony Felton, Turneps.

Stated Meeting, June 20th, 1848. The President in the chair. There were several fine collections of plants, possessing interest from the beauty, rarity and newness of some of the specimens (particulars below) also some excellent fruit and vegetables. Premiums on this occasion were as follows: For the best Hot house plants, for the best Greenhouse plants and for the best collection of plants, to James Bisset, gardener to James Dundas; for the second best Hot house plants, and for the second best collection of plants, to B. Daniels, gardener to C. Cope; for the second best Greenhouse plants, to Benj. Gulliss; for the best bouquet, for the best and for the second best basket of flowers, and best basket of Indigenous flowers, to Robert Kilvington. And special premiums of two dollars each to B. Daniels and Peter Raabe, for bouquets.

For the best Grapes of a black variety and for the best of a white variety, to Benjamin Daniels, gardener to C. Cope; for the best Cherries, (supposed Elton,) to Col. H. Carr; for the second best and the third best do., to Isaac B. Baxter. And a special premium of three dollars for a dish of exquisite Peaches, to B. Daniels, gardener to C. Cope. The Committee notice with much pleasure, a number of new varieties of Raspberries, by our enterprising member Dr. Wm. D. Brinckle, to whom we are indebted for many choice varieties of Seedling Strawberries, etc. The committee also called the attention of the Society to some Gooseberries of extraordinary size, by Isaac B. Baxter.

For the best Artichokes, six heads, for the best and for the second best display of vegetables by market gardeners, to Anthony Felton, for the best display of vegetables by Amateur gardeners, to Isaac B. Baxter; for the second best do., B. Daniels, gardener to C. Cope; for the third best do., to Benj. Gulliss.

A note to the Secretary, from Prof. R. Dungenlis, under date 25th ult., was read, purporting that he had received a letter, accompanied with a barrel of Potatoes, from his friend N. P. Trist, which he had procured from the interior of Mexico, and desiring that our Society would immediately distribute; the package being received, was accordingly distributed by the committee for the distributing seeds, etc. On motion, ordered that the thanks of the Society be tendered for a gift so acceptable.

A communication from Col. Wilder, president of the Mass. Hort. Society, to Thomas Hancock, relative to a proposed convention of Pomologists, was read, and a committee appointed on the subject with power to act, consisting of Thos. Hancock, Dr. W. D. Brinckle and D. McEuen.

A letter from Edmund Burke, of the patent office, to Josiah Tatum, Editor Farmer's Cabinet, was read, desiring a co operation of the Society in obtaining the statistics of fruit from our markets. On motion, ordered that the subject be referred to the committee on fruits.

Members elected.—Price Butler, Geo. A. Wood, Jesse Cole and Robert Scott; also Mrs. Edwin James, Petersburg, Va., to honorary membership.

Objects Exhibited.—Plants by Robert Buist, *not in competition*, White Phlox Drummondii, *new*, Petunia General Taylor a fine plant, Pavetta Caffra, in handsome flower, Erica gracilis, Maxillaria sp., Mimulus cardinalis, 3 feet high and 2 feet wide, Gardenia camelliaeflora, Columnea schediana, Gloxiana rubra and Phlox charles.

By James Bisset, gardener to James Dundas, Columnea Roxburghii, *new*, the first time shown before the Society, Pholodotta imbricata, Oncidium papilio, Cattleya Forbesii, Cyrtopodium venustum, Achenimenes grandiflora, G. picta, Gloxina speciosa, G. Candida, Lilium longiflorum, Gardenier florida, Plumbago rosea, and Gesneria micans.

By B. Daniels, gardener to C. Cope, Nandina domestica, Ceropegia Stapeliformis, Gongora purpurea, Twistedia cærulea, Asclepias currasavi, Roelia splendens, Gardenia florida, Echinocactus Eyriesii, E. oxogonus, Lantana rosea, Amaryllis and Petunias.

By B. Gulliss, Hoya carnosia, a fine specimen Begonia maculata, and Euphorbia splendens.

Bouquets.—By Robert Kilvington, Peter Raabe and B. Daniels.

Fruit.—By B. Daniels, gardener to C. Cope, Grapes, Black Hamburg, and Austrian Muscat, Royal George Peaches, By Col Robert Carr, Cherries, supposed Elton.

By Isaac B. Baxter, Cherries, 2 varieties, Gooseberries, Currants.

By Dr. W. D. Brinckle, Raspberries, specimens of the Col. Wilder, a cream-color, Orange, Cushing, a crimson and Fastoff; Strawberries, Black Prince, No. 285, F. and Buist.

Vegetables.—By Anthony Felton, two fine tables in great variety.

By Benj. Daniels, gardener to C. Cope, Cucumbers, Beets, Corn, Radishes, etc.

By Benj. Gulliss, Peas, Beans, etc.

THOS. P. JAMES, Rec. Sec.



ROSE OF LA BELLE ÉTOILE.

Hort. August, 1848.

Gorticulturist,

AND

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No. 2.

A FRESH BOUQUET OF MIDSUMMER ROSES stands upon the table before us. The morning dew-drops hang, heavy as emeralds, upon branch and buds; soft and rich colours delight the eye with their lovely hues, and that rose-odor, which, every one feels, has not lost anything of its divine sweetness since the first day the flower bloomed in that heaven-garden of Eve, fills the air. Yes, the flowers have it; and if we are not fairly forced to say something this month in behalf of roses, then was Dr. DARWIN mistaken in his theory of vegetable magnetism.

We believe it was that monster, the Duke of GUISE, who always made his escape at the sight of a rose. If there are any "outside barbarians" of this stamp among the readers of our "flowery land," let them glide out while the door is open. They deserve to be drowned in a butt of attar of rose—the insensibles! We can well afford to let them go, indeed; for we feel that we have only to mention the name of a rose, to draw more closely around us the thousands of the fairer and better part of our readers, with whom it is the type of everything fair and lovely on earth.

"Dear flower of heaven and love! thou glorious thing
That lookest out the garden nooks among;
Rose, that art ever fair and ever young;

Was it some angel on invisible wing
Hover'd around thy fragrant sleep, to fling
His glowing mantle of warm sunset hues
O'er thy unfolding petals, wet with dews,
Such as the flower-fays to Titania bring?
O flower of thousand memories and dreams,
That take the heart with faintness, while we gaze
On the rich depths of thy inwoven maze;
From the green banks of Eden's blessed streams
I dream'd thee brought, of brighter days to tell
Long pass'd, but promised yet with us to dwell."

If there is any proof necessary, that the rose has a diviner origin than all other flowers, it is easily found in the unvarying constancy of mankind to it for so many long centuries. Fashions there have been innumerable, in ornaments of all sorts, from simple sea-shells, worn by Nubian maidens, to costly diamonds, that heighten the charms of the proudest court beauty—silver, gold, precious stones—all have their season of favor, and then again sink into comparative neglect; but a simple rose has ever been and will ever be the favorite emblem and adornment of beauty.

"Whatsoe'er of beauty
Yearns, and yet reposes,
Blush, and bosom, and sweet breath,
Took a shape in roses."
LEIGH HUNT.

Now the secret of this perpetual and undying charm about the rose, is not to be found in its colour — there are bright lilies, and gay tiger flowers, and dazzling air-

plants, far more rich and vivid ; it is not alone in fragrance,—for there are violets and jasmines with “more passionate sighs of sweetness ;” it is not in foliage, for there are laurels and magnolias, with leaves of richer and more glossy green. Where, then, does this secret of the world’s six thousand years’ homage, lie ?

In its being a type of *infinity*. Of infinity ! says our most innocent maiden reader, who loves roses without caring why, and who does *not* love infinity because she does not understand it. Roses, a type of infinity, says our theological reader, who has been in the habit of considering all flowers of the field, aye, and the garden, too, as emblems of the short-lived race of man,—“born to trouble as the sparks fly upward.” Yes, we have said it, and for the honor of the rose we will prove it, that the secret of the world’s devotion to the rose,—of her being the queen of flowers by acclamation always and forever, is that the rose is a type of infinity.

In the first place, then, the rose is a type of infinity, because there is no limit to the variety and beauty of the forms and colours which it assumes. From the *wild rose*, whose sweet, faint odor is wasted in the depths of the silent wood, or the Eg-lantine, whose wreaths of fresh sweet blossoms embroider even the dusty road sides,

“Starring each bush in lanes and glades,”

to that most perfect, full, rounded, and odorous flower, that swells the heart of the florist as he beholds its richness and symmetry, what an innumerable range of shades, and forms, and colours. And, indeed, with the hundreds and thousands of roses of modern times, we still know little of all the varied shapes which the plant has taken in by-gone days, and which have perished with the thousand other refine-

ments and luxuries of the nations who cultivated and enjoyed them.*

All this variety of form, so far from destroying the admiration of mankind for the rose, actually increases it. This very character of infinity, in its beauty, makes it the symbol and interpreter of the affections of all ranks, classes, and conditions of men. The poet, amid all the perfections of the parterre, still prefers the scent of the woods and the air of freedom about the original blossom, and says—

“Far dearer to me is the wild flower that grows
Unseen by the brook where in shadow it flows.”

The *cabbage-rose*, that perfect emblem of healthful rural life, is the pride of the cottager ; the *daily China rose*, which cheats the window of the crowded city of its gloom, is the joy of the daughter of the humblest day laborer ; the delicate and odorous *tea-rose*, fated to be admired and to languish in the drawing-room or the boudoir, wins its place in the affections of those of most cultivated and fastidious tastes ; while the *moss rose* unites the admiration of all classes, coming in as it does with its last added charm, to complete the circle of perfection.

Again, there is the *infinity of associations* which float like rich incense about the rose, and that, after all, bind it most strongly to us ; for they represent the ac-

* Many of our readers may not be aware to what perfection the culture of flowers was once carried in Rome. During Cæsar’s reign, so abundant had forced flowers become in that city that when the Egyptians, intending to compliment him on his birth-day, sent him roses in midwinter, they found their present almost valueless from the profusion of roses in Rome. The following translation of *Martial’s* Latin Ode to Cæsar upon this present, will give some idea of the state of floriculture then. There can scarcely be a doubt that there were hundreds of sorts of roses known to, and cultivated by the Romans, now entirely lost :

The ambitious inhabitants of the land, watered by the Nile, have sent thee, O Cæsar. the roses of winter, as a present, valuable for its novelty. But the boatman of Memphis will laugh at the gardens of Pharaoh as soon as he has taken one step in thy capital city ; for the spring, in all its charms, and the flowers in their fragrance and beauty, equal the glory of the fields of Pæstum. Wherever he wanders, or casts his eyes, every street is brilliant with garlands of roses. And thou, O Nile ! must yield to the fogs of Rome. Send us thy harvests, and we will send thee roses.”

cumulated wealth of joys and sorrows, which has become so inseparably connected with it in the human heart.

“What were life without a rose?”

seems to many, doubtless, to be a most extravagant apostrophe; yet, if this single flower were to be struck out of existence, what a chasm in the language of the heart would be found without it. What would the poets do? They would find their finest emblem of female loveliness stolen away. Listen, for instance, to old BEAUMONT and FLETCHER:—

—“Of all flowers,

Methinks a Rose is best ;

It is the very emblem of a maid ;

For when the west wind courts her gently,

How modestly she blows and paints the sun

With her chaste blushes ! When the north wind comes
near her,

Rude and impatient, then, like chastity,

She locks her beauties in her bud again,

And leaves him to base briars.”

What would the lovers do? What tender confessions, hitherto uttered by fair half-open buds and bouquets, more eloquent of passion than the *Nouvelle Heloise*, would have to be stammered forth in miserable clumsy words! How many doubtful suits would be lost—how many bashful hearts would never venture—how many rash and reckless adventurers would be shipwrecked, if the tender and expressive language of the rose were all suddenly lost and blotted out. What could we place in the hands of childhood to mirror back its innocent expression so truly? What blossoms could bloom on the breast of the youthful beauty so typical of the infinity of hope and sweet thoughts, that lie folded up in her own heart, as fair young rose buds? What wreath could so lovingly encircle the head of the fair young bride as that of white roses, full of purity and grace? And, last of all, what blossom, so expressive of human affections, could we find at the bier to

take the place of the rose; the rose, sacred to this purpose for so many ages, and with so many nations,

—“because its breath

Is rich beyond the rest; and when it dies

It doth bequeath a charm to sweeten death.”

BARRY CORNWALL.

The rose is not only infinite in its forms, hues, types, and associations, but *it deserves an infinite number of admirers*. This is the explanation of our desire to be eloquent in its behalf. There are, unfortunately, some persons who, however lovely, beautiful, or perfect a thing may be in itself, will never raise their eyes to look at it, or open their hearts to admire it, unless it is incessantly talked about.

We have always observed, however, that the great difficulty with those who like to talk about fruits and flowers is, when once talking, to stop. There is no doubt whatever, that we might go on, therefore, and fill this whole number with roses, rosariums, rosaries, and rose-water, but that some of our western readers, who are looking for us to give them a cure for the pear-blight, might cry out—“a blight on your roses!” We must, therefore, grow more systematic and considerate in our remarks.

We thought some years ago that we had seen that *ultima thule*—“a perfect rose.” But we were mistaken! Old associates, familiar names, and long cherished sorts have their proper hold on our affections; but—we are bound to confess it—modern florists have coaxed and teased nature till she has given them roses more perfect in form, more airy, rich and brilliant in colour, and more delicate and exquisite in perfume, than any that our grandfathers knew or dreamed of. And, more than all, they have produced roses—in abundance, as large and fragrant as June roses—that blossom all the year round. If this unceasingly renewed perpetuity of charms does

not complete the claims of the rose to *infinity*, as far as any plant can express that quality, then are we no metaphysician.

There is certainly something instinctive and true in that favorite fancy of the poets — that roses are the type or symbol of female loveliness —

"Know you not our only
Rival flower — the human?
Loveliest weight, on lightest foot —
Joy-abundant woman,"

sings LEIGH HUNT for the roses. And, we will add, it is striking and curious that refined and careful culture has the same effect on the outward conformation of the rose that it has on feminine beauty. The *tea* and the *bourbon roses* may be taken as an illustration of this. They are the last and finest product of the most perfect culture of the garden; and do they not, in their graceful and airy forms, their subdued and bewitching odors, and their refined and delicate colours, body forth the most perfect symbol of the most refined and cultivated IMOGEN or OPHELIA that it is possible to conceive? We claim the entire merit of pointing this out, and leave it for some poet to make himself immortal by!

There are odd, crotchety persons among horticulturists, who correspond to old bachelors in society, that are never satisfied to love anything in particular, because they have really no affections of their own to fix upon any object, and who are always, for instance, excusing their want of devotion to the rose, under the pretence, that among so many beautiful varieties it is impossible to choose.

Undoubtedly there is an *embarras de richesses* in the multitude of beautiful varieties that compose the groups and subdivisions of the rose family. So many lovely forms and colours are there, dazzling the eye, and attracting the senses, that it requires a man or woman of nerve as well as taste, to

decide and select. Some of the great rose growers continually try to confuse the poor amateur by their long catalogues, and by their advertisements about "acres of roses." (Mr. PAUL, an English nurseryman, published, in June last, that he had 70,000 plants in bloom at once!) This is puzzling enough, even to one that has his eyes wide open, and the sorts in full blaze of beauty before them. What, then, must be the quandary in which the novice, not yet introduced into the aristocracy of roses, whose knowledge only goes up to a "cabbage-rose," or a "maiden's blush," and who has in his hand a long list of some great collector — what, we say, must be his perplexity, when he suddenly finds himself amidst all the renowned names of old and new world's history, all the aristocrats and republicans, heroes and heroines of past and present times, — Napoleon, Prince Esterhazy, Tippoo Saib, Semiramis, Duchess of Sutherland, Princesses Clementine, with occasionally such touches of sentiment from the French rose growers, as *Souvenir d'un Ami*, or *Nid d'Amour*, (nest of love!) &c. &c. In this whirlpool of rank, fashion, and sentiment, the poor novitiate rose-hunter is likely enough to be quite wrecked; and instead of looking out for a *perfect rose*, it is a thousand to one that he finds himself confused amid the names of princes, princesses and lovely duchesses, a vivid picture of whose charms rises to his imagination as he reads the brief words "pale flesh, wax-like, superb," or "large, perfect form, beautiful," or "pale blush, very pretty;" so that it is ten to one that Duchesses, not Roses, are all the while at the bottom of his imagination!

Now, the only way to help the rose novices out of this difficulty, is for all the initiated to confess their favorites. No doubt it will be a hard task for those who have

had butterfly fancies,—coquetting first with one family and then with another. But we trust these horticultural flirts are rare among the more experienced of our gardening readers,—persons of sense, who have laid aside such follies, as only becoming to youthful and inexperienced amateurs.

We have long ago invited our correspondents to send us their “confessions,” which, if not as mysterious and fascinating as those of ROUSSEAU, would be found far more innocent and wholesome to our readers. Mr. BUIST, (whose new nursery grounds, near Philadelphia, have, we learn, been a paradise of roses this season,) has already sent us his list of favorites, which we made public in our last volume, (p. 434,) to the great satisfaction of many about to form little rose gardens. Dr. VALK, also, has indicated his preferences. And to encourage other devotees—more experienced than ourselves—we give our own list of favorites, as follows:

First of all roses, then, in our estimation, stand the BOURBONS, (the only branch of the family, not repudiated by republicans.) The most perpetual of all perpetuals, the most lovely in form, of all colours, and many of them of the richest fragrance; and, for us northerners, most of all, *hardy* and *easily cultivated*, we cannot but give them the first rank. Let us, then, say—

HALF A DOZEN BOURBON ROSES.

Souvenir de Malmaison, *pale flesh colour*.

Paul Joseph, *purplish crimson*.

Hermosa, *deep rose*.

Queen, *delicate fawn colour*.

Dupetit Thouars, *changeable carmine*.

Acidalie, *white*.

Souvenir de Malmaison (see FRONTISPIECE) is, take it all together,—its constant blooming habit, its large size, hardness, beautiful form, exquisite colour, and charming fragrance, our favorite rose; the rose which,

if we should be condemned to that hard penance of cultivating but one variety, our choice would immediately settle upon. Its beauty suggests a blending of the finest sculpture and the loveliest feminine complexion.

Second to the BOURBONS, we rank the REMONTANTES, as the French term them; a better name than the English one—*Perpetuals*; for they are by no means perpetual in their blooming habit, when compared with the Bourbons, China, or Tea roses. They are, in fact, June roses, that bloom two or three times in the season, whenever strong new shoots spring up; hence, no name so appropriate as *Remontante*,—sending up new flower shoots. We think this class of roses has been a little overrated by rose growers. Its great merit is the true, old-fashioned rose character of the blossoms,—large and fragrant as a damask or provence rose. But in this climate, *Remontantes* cannot be depended on for a constant supply of flowers, like Bourbon roses. Here are our favorite:

HALF A DOZEN REMONTANTES.

La Reine, *deep rose, very large*.

Duchess of Sutherland, *pale rose*.

Crimson Perpetual, *light crimson*.

Auberon, *brilliant crimson*.

Lady Alice Peel, *fine deep pink*.

Madame Dameme, *dark crimson*.

Next to these come the CHINA ROSES, less fragrant, but *everlastingly* in bloom, and with very bright and rich colours.

HALF A DOZEN CHINA ROSES.

Mrs. Bosanquet, *exquisite pale flesh colour*.

Madame Breon, *rose*.

Eugene Beauharnais, *bright crimson*.

Clara Sylvain, *pure white*.

Cramoisie Superieure, *brilliant crimson*.

Virginal, *blush*.

The TEA ROSES, most refined of all roses, unluckily, require considerable shelter and

care in winter, in this climate; but they so richly repay all, that no rose-lover can grudge them this trouble. Tea roses are, indeed, to the common garden varieties what the finest porcelain is to vulgar crockery ware.

HALF A DOZEN TEA ROSES.

Safrano, *the buds rich deep fawn.*
Souvenir d'un Ami, *salmon, shaded with rose.*
Goubault, *bright rose, large and fragrant.*
Devoniensis, *creamy white.*
Bougere, *glossy bronze.*
Josephine Malton, *beautiful shaded white.*

We thought to give NOISETTES the go-by; but the saucy, rampant little beauties climb up and thrust their clusters of bright blossoms into our face, and will be heard. So here they are:

HALF A DOZEN NOISETTES.

Solfaterre, *bright sulphur, large.*
Jaune Desprez, *large bright fawn.*
Cloth of Gold, *pure yellow, fine.*
Aimee Vibert, *pure white, very free bloomer.*
Fellenberg, *brilliant crimson.*
Joan of Arc, *pure white.*

"Girdle of Venus! does he call this a select list?" exclaims some leveller, who expected us to compress all rose perfections into half a dozen sorts; when here we find, on looking back, that we have *thirty*, and even then, there is not a single moss rose, climbing rose, provence rose, damask rose, to say nothing of "musk roses," "microphylla roses," and half a dozen other divisions that we boldly shut our eyes upon! Well, if the truth must come out, we confess it boldly, that we are worshippers of the EVERBLOOMING ROSES. Compared with them, beautiful as all other roses may be and are, (we can't deny it,) they have little chance of favor with those that we have named, which are a perpetual garland of sweetness. It is the difference between a smile once a year, and a golden temper,

always sweetness and sunshine. Why, the everblooming roses make a garden of themselves! Not a day without rich colours, delicious perfume, luxuriant foliage. No, take the lists as they are — too small by half; for we cannot cut a name out of them.

And yet, there are a few other roses that *ought to be* in the smallest collection. That finest of all rose-gems, the *Old Red Moss*, still at the head of all moss roses, and its curious cousin, the *Crested Moss*, must have their place. Those fine hardy climbers, that in northern gardens will grow in any exposure, and cover the highest walls or trellises with garlands of beauty,—the *Queen of the Prairies* and *Baltimore Belle*, (or, for southern gardens, say—*Laure Davoust*, and *Greville*, and *Ruga Ayrshire*;) that finest and richest of all yellow roses, the double *Persian Yellow*, and half a dozen of the gems among the hybrid roses, such as *Chénédole*, *George the 4th*, *Village Maid*, *Great Western*, *Fulgens*, *Blanchefleur*; we should try, at least, to make room for these also.

If we were to have but three roses, for our own personal gratification, they would be—

Souvenir de Malmaison,
Old Red Moss,
Gen. Dubourg.

The latter is a Bourbon rose, which, because it is an old variety, and not very double, has gone out of fashion. We, however, shall cultivate it as long as we enjoy the blessing of olfactory nerves; for it gives us, all the season, an abundance of flowers, with the most perfect rose scent that we have ever yet found; in fact, the true *attar of Rose*.

There are few secrets in the cultivation of the rose in this climate. First of all, make the soil *deep*; and, if the subsoil is not quite dry, let it be well drained. Then

remember that what the rose delights to grow in is *loam* and *rotten manure*. Enrich your soil, therefore, every year with well-decomposed stable manure; and if it is too sandy, mix fresh loam from an old pasture field; if it is too clayey, mix river or pit sand with it. The most perfect *specific stimulus* that we have ever tried in the culture of the rose, is what Mr. RIVERS calls *roasted turf*, which is easily made by paring sods from the lane sides, and ha'f charring them. It acts like magic upon

the little spongioles of the rose; making new buds and fine fresh foliage start out very speedily, and then a succession of superb and richly coloured flowers. We commend it, especially, to all those who cultivate roses in old gardens, where the soil is more or less worn out.

And now, like the Persians, with the hope that our fair readers "may sleep upon roses, and the dew that falls may turn into rose water," we must end this rather prolix chapter upon roses.

THE WISTARIA SINENSIS.

BY DR. W. W. VALK, FLUSHING.

IN several of the back numbers of the *Horticulturist*, quite a number of hardy plants and shrubs have been referred to as worthy cultivation, both for their vigor of growth and great beauty when in flower. Among the many which might be named as eminently deserving a somewhat extended notice, we ask the reader's attention to the *Wistaria sinensis*, or *Chinese Glycine*, as it is called by some persons. It is really one of the handsomest things of the kind that we know of, and we wish to make others of the same opinion, by saying something very favorable with regard to it. Amateurs will not find that we have misled them by speaking of the *Wistaria* as it deserves.

The most magnificent specimen that we ever saw, is trained upon one of the walls in the Garden of the *London Horticultural Society*, and occupies a space in length of 375 feet. Seen in full flower it was exquisitely beautiful, and few could look at it without wishing to have in their possession an ornament so exceedingly graceful. Next to this very extraordinary specimen, the

prettiest we have seen in this country is at THORBURN'S *Astoria Garden*; and a third, of very considerable size, is in the nursery of Messrs. WINTER & Co., of this village.

Judging from the comparative infrequency of its occurrence in small gardens, it would appear not to be known that it is increased so readily as to be purchasable in most nurseries for a small sum, that it is *perfectly hardy*, and that it may be cultivated with the greatest ease, as well as in a considerable variety of ways. In stating these plain facts, therefore, and referring to the plant itself as an evidence of its desirableness, we shall just glance at the several modes in which it may be advantageously treated.

As a green-house or conservatory climber, its attractions are sufficiently familiar and recognized, although, considering its extreme beauty and fragrance, and capacity of blooming several times in a season, besides flourishing in almost any aspect, and being by no means particular as to where it is planted, we should expect to find

it in every green-house and conservatory throughout the country.

In the character of a tall shrub, however, or of a pole plant, for placing in the beds or borders of conservatories, or as a covering to any of the pillars which support the roof, or even pruned into a state of dwarfness, and kept in a pot, or made to trail on rustic work in the centre or back of a green-house, it is almost entirely unknown. To adapt it for any of these forms or positions, scarce any treatment is required beyond a due attention to pruning. But it is absolutely necessary that this pruning be rigid, and followed up with the greatest strictness.

The natural habit of the plant being to produce very long and comparatively weak shoots, it of course commences to form these from the very earliest period of its growth. Indeed, as soon as a layered branch has become a plant, by throwing out roots from that part which is plunged in the ground, and which has been partially cut through to facilitate the process, it will begin to develop those tenuous branches which are peculiar to the species; and, where a bushy specimen is required, the pruning must then be immediately started. Nor will it be at all prudent to cease this close pruning until the plant has been reared into the desired form, when it will also have acquired that tendency to bear short blooming spurs, instead of stout branches, which will render the subsequent prunings light and trifling.

By this kind of routine, therefore,—taking care to keep the shoots cut back very closely at least every year, and, in the first stages, twice or thrice each season,—good shrubby or pillar plants may readily be obtained for the conservatory. Nor is it to be questioned, that both the novelty and beauty of such objects would greatly contribute to

the adornment of appropriate plant structures.

But, independently of the suitableness of this *Wistaria* for attaching to the pillars of a conservatory, and for being so confined by pruning as to cover them alone, without extending over any other portion of the building, it possesses an equally striking adaptation for affixing to poles, whether of wood or iron.

And here we cannot but digress a little to express our wonder, that in addition to those fine climbers which are in well kept establishments made to depend so naturally from the roof of the house, instead of being retained in that trim restricted form which was once so universal, the interesting open-ground practice of training climbers to poles is not more freely introduced. A pillar of exotic climbing roses, for example, supported by a pole, and standing out amidst the varied shrubs or arboreous plants of the conservatory, would be a most delightful object; and there is scarcely a climber of any description that might not be similarly managed; for, when once they have been brought, by pruning, into a duly compact form, with a tendency to produce *early lateral shoots*, these last will, if left almost untouched, soon fling themselves out around the stem in every direction, and gradually take that drooping and waving character which makes them so exceedingly graceful.

The *Wistaria* is an excellent plant for this purpose, as experience has fully proved. By efficient pruning, it will acquire, when at the height of ten or twelve feet, such a number of lateral branches about a foot long, that, after it has reached this state, it will bear only blooming spurs; or, if it should happen to throw out a few of its long slender shoots, these will only serve to increase its beauty during the summer, and be pruned away in winter.

Treated as a dwarf shrub, and cultivated in a pot, it is, moreover, an extremely manageable plant, and makes a very agreeable thing for a show house, as well for its actual interest, as because the fragrance of its flowers can be better enjoyed. What may be done with it in this way, is yet to most cultivators all speculation; but specimens have been exhibited which show that the most satisfactory results have followed the effort. As in the cases before spoken of, pruning is the means by which it is to be brought into this dwarf condition; and since it grows in the most common soil, the compost supplied to it in a pot should be of the simplest nature, such as ordinary garden earth, while the pot itself need not be over large.

In alluding to the *Wistaria* as a pot plant, we would not forget its capabilities for forcing, under such circumstances. Under the stimulus of a little heat it develops itself finely, as most cultivators well know. And when its attractions are duly considered, it will, we think, ere long be frequently subjected to the treatment indicated. As a plant for forcing, under any circumstances, this species is likely to prove a valuable accession to the rather limited number of such plants, and we shall be pleased if this hint should bring it more into notice. Its recommendations are freedom in the production of flowers, great beauty, and an exquisite fragrance.

When grown out of doors as a wall-plant, and trained over the face of a house or other edifice, the circumstance of its blooming before the leaves appear, though not in itself an interesting one, is a thing which might properly exercise the attention and inquiry of the culturist, in order to associate it with some other plant which would supply the lacking verdure. Perhaps the *ivy*, being the most verdant of all plants with a

climbing habitude, might be very appropriately blended with the *Wistaria* in clothing a wall, or a portion of a building. From the spreading nature of the *ivy*, it would necessarily require a great deal of trimming and pruning, to prevent it from overrunning the *Wistaria* and smothering it. But this could be easily prevented, and if only half a dozen branches of bloom were here and there visible amidst the dark and glossy foliage of the *ivy*, the effect would be most charming.

But the *Cytisus laburnum* is more appropriate than the *ivy* for the purpose indicated above. It blooms nearly at the same time, has an allied character, and possessing a greater profusion of fine foliage, might be happily mingled with the *Wistaria*. There is no difficulty in training the *Laburnum* against a wall; and by intermingling the branches of the two plants, their similar racemes of blue and yellow blossoms would create a peculiar and pleasing effect.

In treating the *Wistaria* as an open ground plant, it has hitherto been chiefly employed for walls or against houses; and its singular adaptation for decorating bowers, arbors, &c., seems to have been quite overlooked. It is exceedingly well fitted for covering those trellised arches of wood or iron which are sometimes placed over the walks in flower gardens and pleasure grounds, as nothing could be more delightful than a walk beneath its lovely blooms. Those open roofed pavilions or canopies, too, which are occasionally made of rustic wood and put up in similar places, afford an equally good position for the charming *Wistaria*.

What so appropriate in the way of a climber for arbors, or the retired erections for rest and cool enjoyment, so common in some gardens, as the *Wistaria*? To look

through its noble racemes of blossoms, fringing the edge of the roof, or surrounding the pillars along the front, would constitute the perfection of a foreground to a scene, either of rural beauty, or of enriched and elaborate cultivation.

The *Wistaria* is quite as hardy as the Laburnum. [Much more hardy. Ed.] We have spoken of it fully as it deserves, and hope enough has been said to increase its cultivation, and to give it that diversity, so essential to the production and maintenance of interest. For our "*items*," we are indebted to the suggestions of a writer of known skill and experience.

WM. W. VALK, M. D.

N. B. We have a small plant of the "*Wistaria rosea*," sent us from Belgium, and represented as handsomer than the *sinensis*. Yesterday we saw the fruit of the "*Grosielle cerise*," or Cherry Currant; it is fully equal to our highest anticipations, and the largest of all currants known. They measured over an inch in circumference.

W. W. V.

REMARKS.—Our correspondent has scarcely done justice to the merits of this—certainly one of the loveliest of all climbing plants. We have cultivated it in various situations for ten or twelve years, and find it perfectly hardy in all exposures. A single plant will cover hundreds of square feet, if simply trained upon trellis, wall, or building; or it may, by shortening the branches, be kept within the limits of a single upright pole, or the columns of a piazza. The months of April and May deck it with the most wonderful profusion of long clusters of blossoms; (a gentleman compared the grand specimen in THORNBURN'S garden, at Astoria, when in full bloom this year, to a "floral cataract of Niagara;") and old plants are more or less in bloom from May till November.

It is, in short, a climber for all places,—whether cottage, farm-house, or villa; and we hope, before long, to see it planted wherever there is the least refinement possessed by the inmates of country houses from Maine to Louisiana. Ed.

REMARKS ON NEW STRAWBERRIES.

BY G. W. HUNTSMAN, FLUSHING, L. I.

DEAR SIR—In my last communication, I promised to make some further remarks upon new varieties of strawberries. This promise I will now endeavor to redeem, in part, at least.

Of the many new varieties lately introduced, I have noticed the following, though not, in all cases, under the most favorable circumstances for judging of their merits:

Black Prince,
Burr's New Pine,
Crimson Cone,
Profuse Scarlet, (Prince's),
Boston Pine.

Iowa,
Cushing,
Bishop's Globe,
Abyssinian Prince,
Lizzie Randolph,
Taylor's Seedling.

—
Eberlein,
Charlotte, (Prince's),
Pimate, do.
Primordian, do.
Jenney's Seedling.

—
President,
Buist's Prize,
Burr's Seedling,

Burr's Mammoth,
North's Victory,
Willey.

I do not intend giving a description of each of these varieties, but to make a selection of five kinds which, in my opinion, possess qualities entitling them to notice. The first five are those I have selected. The *Black Prince* has been fully described in the *Horticulturist*. I can only say that it does not fall short of its description. Its peculiarly rich and sweet flavor render it the most desirable strawberry to eat out of hand. Indeed, it is not much improved by sugar; and in point of productiveness, it is not behind any other variety with which I am acquainted.

Burr's New Pine is another first rate pistillate variety, very productive, and of a rich sweet flavor. Fruit large, and uniformly short, conical, of a light crimson colour. Ripens about the same time as the *Black Prince*.

The *Crimson Cone*, known in the New-York market as the "Dutch berry," is a very desirable kind, coming in quite late. The fruit, though not of the first size, is very beautiful, being a bright crimson, and uniformly conical; it also has the property of keeping remarkably well after being picked; the flavor is rich acid. The plants possess great vigor, and should be planted farther apart than any other variety.

The *Profuse Scarlet* is a new variety, raised by W. R. PRINCE, from seed of the *Large Early Scarlet*, which it closely resembles, both in size, colour and flavor. It will, perhaps, average rather larger. It possesses a decided advantage over the *L. E. Scarlet* in being a *pistillate* plant, and therefore more uniformly productive. It will, I think, when known, supercede the *Early Scarlet*.

The *Boston Pine* is a superb early variety, requiring, however, good soil and high cultivation to obtain a good crop.

The first four of these are *pistillate*, and will bear well under almost any kind of cultivation, provided the ground is good, and they are duly impregnated. This latter office may be performed by the *Boston Pine*, which is a hermaphrodite plant. I am not certain but that the *Boston Pine* may be superceded by the *Eberlein*, or *Primate*, both of which are excellent and productive varieties.

There are others, beside those selected, possessing good qualities, which may entitle them to notice.

The *Charlotte* and *Jenney's Seedling* are both excellent varieties.

Allow me to make a few remarks upon the cultivation of the strawberry. I have found from my experience and observation, that while some kinds succeed tolerably well, under almost any mode of treatment, others, to bear well, require a particular mode of culture.

I will first notice the *Boston Pine*, which Mr. HOVEY considers very productive, while others assert the contrary. I have seen this variety both productive and unproductive, according to the mode of treatment. When it has been planted in separate stools, kept clean of runners, and in good strong ground, it has proved highly productive; while on the contrary, when the plants were suffered to run into a thick mass, it scarcely bore any fruit.

The same remarks will apply to almost all hermaphrodite plants, bearing large fruit. The reason of this seems obvious enough, when it is remembered that these plants throw up generally many times more blossoms than pistillate varieties; when, therefore, they are crowded too thickly, they do not find sufficient nutriment, or the

plants individually are not sufficiently strong to perfect the fruit.

Pistillate varieties, as they do not throw up so many trusses, will succeed much better in thick beds. These remarks may explain the discrepancy which often occurs in the statements of different individuals about the productiveness of the same; and may, also, independently of climate, explain the reason why English cultivators are so much more successful in cultivating hermaphrodite plants, as they almost always keep the plants in stools under a high state of cultivation,—the runners being continually removed. The mode of cultivation has also a very decided influence upon the quality of the fruit. *Hovey's Seedling*, for instance, is very different in flavor when crowded in beds, from what it is when cultivated in open drills, and the fruit fully exposed to the influence of the sun. In the first case, the fruit is rather insipid; in the latter, it is of excellent quality.

G. W. HUNTSMAN.

Flushing, July 10th, 1848.

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[The foregoing really sensible and practical remarks, on the culture of the different classes of strawberries, we publish with

the greater pleasure because there has been so much said on this subject by prejudiced persons, who are too strongly biassed in favor of one or the other horn of the strawberry dilemma to judge impartially.

Mr. HUNTSMAN's remarks, respecting the influence different modes of cultivation have upon different varieties, corresponds exactly to our own views. Hermaphrodite sorts, well cultivated, may be made to produce very large crops. The advantage of growing pistillate sorts is, that a very careless or inferior mode of cultivation will suffice to produce crops equally large, or even larger; and, in this country, where labor is much scarcer and dearer than abroad, any mode of cultivation that saves labor will become the popular one.

We are inclined to rank the *Large Early Scarlet* as one of the most productive of strawberries, although it is an hermaphrodite, and not a pistillate sort. We have compared its product for two seasons past with that of some of the best pistillates, and find it quite equal. Its great hardiness, and the fact that it is one of the best sorts to plant, as a fertilizer, along with pistillate varieties, lead us to consider it still one of the most valuable. ED.]

STRAWBERRY CULTURE AND SELECTION OF VARIETIES.

BY WM. R. PRINCE, FLUSHING, N. Y.

It is indispensable that the ground for strawberry beds be perfectly free from all weeds and their seeds. This may be effected by digging the soil several times at intervals; thus destroying all forthcoming weeds. The preferable soil is a rich loam that retains moisture, but sufficiently friable for the requisite filtration; this should be highly manured, but without the proba-

bility of introducing nauseous weeds therewith. The beds should be about four feet wide, and the plants set fifteen inches asunder; and new beds should be formed every second year. The best periods for planting, in all but the southern states, are August, September, and April. Strawberry plants are of three characters: 1st, staminate or male, *sterile*; 2d, hermaphrodite or bisex-

ual, *more or less productive*; 3d, pistillate, *very productive*. The two first have been usually spoken of as one by ourselves and others, when referring to impregulators; and the second has usually been termed staminate, when speaking of fruit bearing varieties. As these sexual characteristics are *permanent*, and as false impressions are conveyed by the terms, as hitherto applied, we deem it indispensable to correct the nomenclature by a true and correct application of these terms in future. In the culture of the pistillate varieties, it is indispensably necessary that they be accompanied by about one-twentieth of some staminate or hermaphrodite variety, which will render them invariably productive. This course was recommended in our Treatise on Horticulture in 1828, since which it has been adopted in Ohio and elsewhere. The pistillate varieties possess the great advantage, that they may be allowed to run together in a mass, and will, in this mode, bear profusely, and this is the most profitable course of culture; whereas, the hermaphrodite varieties, (with three or four peculiar exceptions,) will not produce a fair crop, unless they are cultivated as distinct plants and kept clear of runners. There can be no such event as a failure in the crops of pistillate varieties, (when accompanied by staminates or hermaphrodites.) *Every pistillate variety is productive*, varying only in abundance. The hermaphrodites may all be deemed *moderate bearers*, except where we have denoted otherwise; and the few exceptions mostly produce fruit of but medium size. The Primate, and possibly two or three other hermaphrodites, comprise the only varieties with large fruit that produce large crops. In selecting an impregnator to plant among pistillates, it is best to select a productive hermaphrodite variety, as this will prevent any loss of

ground. In regard to hardihood, all the varieties we now cultivate, with the exception of the Montevideo Pine, will withstand the winters of the most northern states, by simply covering the beds during winter with four inches of straw or leaves.

DESCRIPTIONS OF TWENTY SELECT VARIETIES.

Profuse Scarlet.—A seedling from that favorite and earliest market variety, the Large Early Scarlet. The fruit is at maturity at the same period, and is of larger size than its parent, which it closely resembles in form, colour and flavor. The parent is hermaphrodite, and only a moderate bearer; but the present variety is *pistillate*, and bears profusely,—thus furnishing a most desirable acquisition, and one that has been anxiously sought for. Flowers small.

Bishop's Seedling or Orange.—This is very different from the crimson variety, erroneously so called, being a beautiful orange scarlet, with a profusion of clusters, unsurpassed by any other, of medium size, rounded. Flowers medium. *Pistillate*.

Black Prince.—Large, rounded, slightly projecting at the extremity, blackish crimson, very dark, in large clusters, very showy, sweet and excellent when fully ripe. Flowers medium. *Pistillate*.

Charlotte.—Large, obovate or rounded, dark scarlet, sweet, delicious, sprightly flavor, and very superior to most varieties; exceedingly productive. Some straw should be lain on the ground, as the size and abundance of the fruit causes it often to rest on the earth. The foliage is broad and luxuriant, and even more so than Hovey's Seedling, to which its habit greatly assimilates. Flowers medium. *Pistillate*.

Crimson Cone.—Large, elongated cone, bright crimson, very beautiful, good flavor, and fragrant; keeps remarkably well, and

estimable for market—very productive. A remarkably vigorous plant. Flowers above medium for the sex. *Pistillate*.

Crimson Pine.—Rather larger than the Hudson, of same form and colour, handsome, very productive, suitable for market. Flowers medium. *Hermaphrodite* and *pistillate* on distinct plants.

Cornucopia.—A magnificent seedling from the Hudson,—very large, conical, scarlet, good flavor—very productive—fine for market. Flowers medium. *Pistillate*.

Eberlein.—Early, medium size, conical, dark scarlet, remarkably productive; averages larger than Large Early Scarlet; ripens next after it and the Profuse Scarlet, and at the same period as the Iowa. Flowers medium. *Hermaphrodite*.

Burr's New Pine.—Very large, obovate or rounded, light crimson, beautiful, very sweet and fine flavor, detaches easily; very productive. Flowers large for the sex. *Pistillate*.

Burr's Rival Hudson.—Large, showy, dark scarlet, red inside, long jointed cone, flavor good when fully ripe,—much resembling, in form and flavor, its parent, the old Hudson; the berries in large clusters; very productive. The plant is very vigorous, with dark green foliage. Flowers medium. *Pistillate*.

Brilliant.—Large, conical, deep crimson, beautiful, excellent flavor; productive. The plant is very vigorous, and a seedling of the Crimson Cone. Flowers large. *Hermaphrodite*.

Cushing.—One of Dr. Brincklee's seedlings; very large, light and scarlet, obtuse cone, fine flavor; productive. Flowers large. *Hermaphrodite*.

Iowa.—Large, broad-rounded, sometimes depressed, seeds deeply imbedded, beautiful, light orange scarlet, not high flavored, but pleasant; early and productive,—a pe-

culiar fruit. Flowers medium or under. *Hermaphrodite*.

Magnifique.—Very large, orange scarlet, rounded, splendid, pleasant flavor; very productive,—an extraordinary fruit. *Pistillate*.

Prolific Swaintsone.—Large, ovate, scarlet, fine flavor; productive,—an improvement on the old Swainstone, its parent. Flowers large. *Hermaphrodite*.

Primate.—A seedling from the Prince Albert, of extraordinary character; being the only hermaphrodite variety that produces large fruit and large crops; form conical, deep scarlet, splendid, good flavor; very productive; fine for market. Flowers medium.

Primordian.—Early, large, elongated cone, deep scarlet, beautiful; very productive; ripens with the Eberlein, next after the Large Early and Profuse Scarlet. Flowers small. *Pistillate*.

Prolific Hudson.—Medium to large, short cone, crimson, good flavor; very productive; ripens gradually; don't rot. Flowers medium. *Pistillate*.

Refulgent.—Medium to large, peculiar form, ovate with a neck, beautiful, bright scarlet, fine flavor; highly productive and estimable. Flowers small. *Pistillate*.

Unique Scarlet.—Large, purse shaped, light scarlet, sweet, rich, delicious flavor; a peculiar fruit. Flowers medium. *Hermaphrodite*.

Montevideo Pine.—A distinct species, producing fruit of monstrous size and of conical form, sometimes variable, and high pine-apple flavor; ripens late, and continues ten or twelve days after the other large varieties have passed. The plant is the strongest in growth of all strawberries; foliage large and vigorous; petioles, peduncles and runners, strong and downy; the blossoms very large, often the size of a

dollar. It succeeds here, and is well suited to the southern states, to which it must prove a most desirable acquisition, as the northern varieties do not thrive there. Above a dozen splendid varieties have been produced from the seeds of this estimable parent. *Hermaphrodite*.

Unique Prairie.—Called in Ohio—"Necked Pine;" but as it is a native of the western states, and has no affinity whatever with the Pine family, I have dropped the latter title. It is of peculiar form, ovate, with a very distinct neck, medium or rather large, light scarlet, indifferent flavor and too acid, except well sugared, or as preserves; foliage dark green,

deeply grooved. Flowers medium. *Pistillate*.

Taylor's Seedling, is another prairie variety; medium to large, long oval, with a distinct neck, light bright orange scarlet, sweet and pleasant when fully ripe, but not high flavored; ripe soon after the Iowa. Flowers medium. *Pistillate*. W. R. P.

Flushing, July 11, 1848.

[We hope Mr. PRINCE will exhibit some of these new seedling varieties of his own,—*Charlotte*, *Primate*, *Primordian*, &c., before the fruit committee of the Massachusetts or Pennsylvania Hort. Societies, next season, in order that a report may be made on their respective qualities. ED.]

THE GERANIUM AND ITS CULTURE.

BY GEORGE GLENNY.*

ENOUGH, in all conscience, has been written upon the subject of this favorite flower, and yet we must write once more. One would, however, think, that every cottage window was in itself a lesson, when we see the ruddy health and fine colour which characterize almost every plant we see in those situations. The truth is, that persons who grow plants for amusement only, are content with ordinary loam and dung, or even the common mould from a kitchen garden, and as they do not excite the plants, they remain in health, while others, who grow for exhibition, mix up excitable compost, which makes the plants grow very strong, but in this very strength there is danger. A slight check deranges their machinery, or, rather, their structure; and whole collections frequently get impaired in the colour of their foliage, and the disappointment is mortifying in the extreme. There is no staving off the mischief, because it is all too deeply seated before it shows itself, and often past recovery, as fine specimens, before anything wrong is

indicated by the appearance. A person should never use exciting composts, unless he is constantly attending to his plants, because the higher they are grown, the more susceptible they are of damage; and *vice versa*, the more simple the compost, the less likely they are to be deranged in their economy, although they may not grow quite so rampant and strong. The great object of the cultivator for exhibition, according to the present fashion, should be strength, bushy habit, quantity of bloom, and colour of foliage. This is not to be accomplished by exciting composts, for rapid growth induces long instead of short joints, and nothing goes farther towards spoiling habit. Suppose the sticks, the scores of sticks, were removed from some of the gay-looking show geraniums, they would hang all over the pots—they having been excited into rapid and weakly growth, and unable to sustain their own weight. There is nothing so much wanted as a reform in this matter. The waste of time required to prop these miserable branches out at proper distances, can only be tolera-

* From the London Hort. Magazine.

ted by persons who have no notion of its value. Private establishments do not, in general, produce such specimens; and many who buy at large prices, get dissatisfied with their gardeners for not producing the plants as large and as handsome as those exhibited at the public shows. There is, however, a medium as to compost, and no one ought to go to extremes, except by way of experiment, and that should be with a very few of their plants, and not the best. The compost that does least harm, is vegetable mould and loam; hardly any proportions of these can be mischievous. In short, plants will grow in either of them without much danger to their constitution, although they may affect the first growth; but as we propose to treat of all the different stages of growth, the soil to be used, and every necessary particular, under their various heads, we need only say here, that we wish to see geraniums grown in good health and strength, supporting themselves, instead of being propped up with a hundred sticks, which are destructive to the nature of the flower and plant, discreditable to the gardener, and to the societies who encourage him; in short, it answers but one purpose, which is filling the tables, and a mass of imperfect blooms, instead of a reasonable quantity of noble flowers, is the result. Nevertheless, it is the fashion, and the prizes are too tempting for gardeners, who are generally ill paid, to resist. In obedience to the mania for such things, we shall be obliged to direct how to spoil as well as how to grow geraniums; but our mind has been always made up to one thing, and we shall pay attention to it as a necessary precaution against the all-absorbing propensity to admire large plants. If the public were shown how grand the flowers come when grown on the leading shoot, without cutting back, or stopping, when only three or four, or, perhaps, half a dozen lateral shoots appear, they would hardly know the same varieties; but if even these lateral shoots are taken off, and the whole strength is thrown into the leader, (which we should do, if we were going to show a single truss of the cut flower,) or, what is, perhaps, the best of all, to allow the leaders and the laterals that come naturally to make their growth, and as soon as the laterals show

their buds, to pick them off, which is of great assistance to the main bloom, they would not be quite so fond of the enormous plants, and the victimized flowers, that crowd upon the artificially grown, and still more artificially supported specimens that now occupy their attention at shows, and literally disguise the varieties that are really good. It is quite notorious that a flower is never seen afterwards so good as when it is exhibited with its first bloom; and it is thought by some that the flowers degenerate. Let them stop back a currant tree, and constantly top the laterals, until they crowd it with comparatively weak shoots, and see if they get the flowers and fruit so large; but it is a strange fancy that, in geraniums, the art of gardening is reversed; instead of pruning out branches, to give light, air, and strength, to those remaining, that the plant may have less than its natural work to do.

THE CULTURE.

Scil.—To do justice to the culture of geraniums, it is necessary to be provided with several ingredients in their purest state. The first of these, and by far the most important, is the loam, formed by the turf, cut three inches thick, from a loamy pasture, and laid together until the entire vegetable matter is decomposed. To effect this, the turves should be laid grass to grass, and roots to roots, one on the other, till all of them are built into a stack. At the end of one year, this should be chopped down into slices, and thrown into a heap, some person picking out grubs, wire-worms, or other vermin, likely to be injurious to the plant; for it is notorious, that no earth is so full of such as that formed of rotten turves, the roots being in general so great a harbor for both wire-worms and grubs of various kinds. The object of chopping it down in these slices, is to detect them the more easily. When the entire stack is thus chopped to pieces and put into a heap, it should lay another year together, and it will be fit for use; and the heap of compost thus formed will be, as nearly as may be, half loam and half vegetable mould, and this compost would, of itself, grow almost anything. The only possible evil that could be, is retentiveness, or adhesiveness; but, unless the natural loam were very stiff indeed,

Fig. 14—*The Geranium.*

even this could hardly occur. Provision, however, must be made for further mixture; but it may be necessary to provide for cases in which this compost of rotten turves cannot be had: and in this case, you must provide clean loam, remembering that the top spit of a pasture is always preferable to any other, and that it must not be too stiff. In this case, you ought to prepare even the staple heap so as to be as nearly a substitute for the rotted turf as possible. This may be done by putting a three-inch layer of the loam, and three inches of old cow-dung, and repeating these layers till the heap is as high as you intend to make it. Let this lay a year together, and chop it down, as in the case of turf, throwing it into a heap, to be packed, however, as you proceed, in the same way as before directed. The cow-dung is as nearly a compensation for the decayed vegetable, and the continued dressing that a pasture has from the animals which feed, as can be found, and such a compost will grow almost anything. But it may be necessary to use the plain loam, as you get it, instead of waiting a

couple of years for it. In this case, all the other matters used with it must be thoroughly decomposed. Mr. Beck, who has been very successful, forms his staple heap, as we shall call the principal soil already described, by means of a top spit of turfy loam, in alternate layers with the muckings out of a stable, allowed to lie in a heap till the straw is decomposed. There will not, however, for general purposes, be found much difference in the growing qualities of the three heaps; and a fourth may be made, in the want of having pure loam without the turf being rotted, by putting half loam, one-fourth leaf mould, and one-fourth decomposed dung from an old melon bed. This should be well mixed and turned over as often as possible before using, and it must be used as a substitute for the other heaps, which we shall, for the sake of being understood, call loam. The other ingredients to provide himself with, are turfy peat, with the vegetable fibre among it, and silver sand. Thus prepared, we will venture to say, we shall be able to do without bone-dust, and other nostrums,

which are too commonly proposed to be used, and much to the detriment of a wholesome healthy growth.

BUYING THE PLANTS.

In commencing the culture of geraniums, it is desirable you should, in blooming time, visit the nurseries, and choose for yourself; or attend where you may see a great number prepared for exhibition. We prefer visiting the nurseries, because there are many plants grown that are not barbarized by the degrading use of props; and you are able to see whether a plant is of such a habit as will sustain itself without props; if there be any that will not, do not touch them, nor admit them into your collection. Choose plants of good strong bushy habit, with short strong joints, rich foliage, and compact round-looking flowers, with thick petals, smooth edges, and well-defined colours. They should also be with large trusses of flowers, which have foot-stalks long enough to spread out the bloom of each truss into a handsome head; regard should also be had to contrasting the colours of the collection, choosing the best of each colour or shade, such as the best pure white without a blotch, the best with a light blotch, and the best with a dark one. Then the best pink with a light, and the best with a dark, and so on, through all the best of the colours. Avoid those that are indefinite, and not bright and striking, for they do no good to a collection. The only exceptions to be made, are when there is any remarkably good point about them unconnected with their colour; for instance, the thickness of petal, or roundness of flower, with smoothness of edge. These points, in perfection, might tempt us to take one of bad colour for the sake of raising better colours with these good qualities. These plants are, for the most part, bought in thumb-pots out of the blooming season, though the old varieties may be had already in flower. We shall treat them as if in four-inch pots, well established, and in the autumn of the year, the time when most new varieties are sent out by Mr. Beck and other seedling growers.

THE FIRST SHIFT.

Get some six-inch pots, and put in a crock at the bottom to cover the hole, and some smaller ones to assist the drainage. Now

prepare a compost with two parts from the loam heap and half a part of peat, rub it all through a very coarse sieve that would let a hazel nut through, because it removes any large portions of undecomposed matter, large stones, and hard lumps, while it does not affect that admission of air which is so essential to the roots. If this mixture seems sufficiently light and porous to let the water through very easily, there will be no occasion for anything else, but if it appears too adhesive, add half a part of silver sand. Mr. Beck uses his two-thirds from the loam heap and one-third of silver sand and peat mixed. The truth is, that neither the peat nor the silver sand is of use except in a mechanical way, to render the soil rather more pervious to air and water than it would be alone, and therefore the use of them must be for the most part dependent on the adhesive or non-adhesive quality of the loam. Turn out the ball from the four-inch pot, and having put a little soil into the larger one, and rubbed off the surface and the drainage, place the plant in the new pot, as low down as the base of the lower shoots or the lower leaves, for a geranium will bear deep potting, and strike new roots all the way up the stem; so that at every shift it may if desirable be set lower to make it more dwarf. If the plant consist of merely the upright cutting, and there are no lateral shoots, pinch out the top if you intend to make it dwarf and bushy; but if you desire to cultivate the plant for a single truss of flowers to cut, take out any side shoots that may come, and grow the plant up; but there is a better way than either, if we are to be content with one noble truss and a handsome plant, and that is, to allow it to make its own growth, which will be with one leading shoot and a few lateral branches, which form the plant into a bush at the lower part, while the leader is depended on for the principal and perhaps only bloom,—the way in which, according to our notion, one class ought always to be exhibited. We would have these classes, one for quantity of bloom, one for cut trusses of bloom, and one for plants with only a single truss of flower; but even the first class should be prevented from showing with props, for we maintain it is not only unnatural, but it has

caused the cultivation of many sorts quite incapable of sustaining themselves. Having, however, made the shift from the four-inch to the six-inch, they may be placed in the house to make their growth, which they soon will, and be ready for another shift. All this time they must have plenty of air, and not too much water. Mr. Beck, whom we are bound to look up to as a cultivator, on account of his excellent productions, recommends us to promote their growing freely until they have rooted well round the pots, then keep them quiet by withholding water as much as possible, and giving them abundance of air. We cannot dispute the propriety of promoting their growing freely, unless we could define the thing, by knowing the means by which they are to be grown freely. We do not consider the necessary growth from the autumn repotting, to the next shift, warrants our acceptance of the words. We, for instance, object to any more heat than is necessary to preserve the house from damp and frost, and we also object to any more water than is necessary to keep them going, and we give as much air as the mildness of weather will enable us to do from the time of the first to the period of the second shift, which with us would be as soon as the roots fairly get round the pots. We suspect that this is the system intended by Mr. Beck, although, for the sake of brevity, he has conveyed to our minds the notion that heat should be applied to promote growing freely. We should merely supply them moderately with moisture, liberally with air, and sparingly and reluctantly with heat. We should shift them as soon as the roots began to meet round the pot.

SECOND SHIFT.

From the six-inch pots we should remove to pots of eight-inch size. Putting crocks at the bottom as before, and using the same compost, we should remove the ball whole from one pot to the other, merely rubbing off any loose soil from the balls, and sinking the plants still lower if necessary, so as to bring down the foliage to the edge of the pot. Of the plants that are to be bushy, any shoots that are more vigorous than the others should be stopped, to promote an even growth. Those intended to grow a single truss for cutting, and the plants of

which are not for any other purpose, may have their side shoots taken away as often as they come and as soon as they are large enough. The plants which are to be shown with a single truss on the leader may have any remarkably vigorous side shoots shortened, to prevent them growing ugly or uncouth, and also to check too much exuberance in any one branch. These plants will all be found vigorous, and where they throw up the leader trusses, select from the plants those which have the greatest number of flower buds on the main truss, and put them on one side. The others may bloom all their trusses, and will, though not tortured into a hundred bunches of insignificant flowers, show eight or ten perhaps as large as any two of the others. As the side shoots develop their blooms in the selected plants, let them be picked off, and allow none but the truss selected to bloom on the same plant. They will not be quite so large as the trusses on the plants deprived of their side shoots, but they will be much larger than any of the others. The selected plants will yield a centre truss but little inferior to them, and those which are all allowed to bloom, will be bold and handsome compared with the plants which are stopped back from time to time, to increase the number of branches and trusses intended to be propped into their places. But these require, as a general application, as soon as the trusses of bloom are formed, liquid cow dung water, made with one bulk of well rotted dung to six bulks of water, that is, a quart to six quarts, or a gallon to six gallons; this may be used once to three times watering with plain water, and continued until they bloom once out of four waterings. The cow dung is stirred with the water, and applied just the same way through a rose of a watering-pot, but not on the foliage.

BLOOMING.

As they approach the opening of the bloom they must be shaded with a very light cloth, and air should be given while the sun is powerful. About five, the house should be closed, and the plants be syringed carefully with a light rose on the syringe, and very clear water. The plants will bloom in perfection; and the difference between the plants pinched back and grown

into numerous stems and those only grown into one or a few, will be so striking as to make the flowers appear different varieties. Mr. Beck, who has a great dislike to sticks, but must nevertheless grow according to the rules of exhibitions, directs the sticks to be so placed, and to be of such length, that they cannot be seen above the base of the flower stalks; and he very properly remarks, and it is going part of the road with us, that the truss that will not support itself is unfit for the amateur's stage. We go farther, and maintain that the plant whose branches will not support themselves, is unfit for cultivation or exhibition, though we know many approved varieties are of this faulty nature.

GENERAL MANAGEMENT OF SHOW PLANTS.

The enormous specimens which we occasionally see at exhibitions, are as easily produced as small ones. There is no more merit, although there is more labor. A geranium could be grown as large as a gooseberry bush, with nothing but additional work, that is caused by the difference of weight.

GROWTH OF LARGE SPECIMENS.

A very simple set of rules decides the number of branches on a geranium, as well as on any other plant of similar habit. By taking away the top from a cutting as soon as it has struck and been potted singly, and down to within three eyes of the ground, these eyes will send forth three branches, and as soon as these have grown so as to have two eyes to leave on, they may be topped; from each of these, two more branches are emitted. This kind of check is to be accompanied by occasional shifts from small to larger pots as soon as the roots fairly reach the side, and begin to meet or grow round the outside: in the course of this treatment it will be found that many branches will come where they are in each other's way; those which would cross or crowd each other must be regulated by taking away the one most in the way, and due regard must be always had to the general form of the plant; but it is quite certain that by this constant plan of shortening the branches as they come forward the form may be adjusted to anything. In all the shifts the plant may be lowered in the pot if necessary, to bring down the foli-

age to the rim of the pot, for nothing looks worse than a vacancy between the pot and the foliage. It is only necessary to continue this till all the buds begin to rise and bloom, when they may all be picked off, and the plant may have all the air, and sun, and rain; in short, it may be placed in the open garden, where it would be sheltered from high winds. Towards the middle of August it may be deprived of water and cut in, and the branches may be thinned, so as to form a good skeleton of a plant. It may then be repotted. In cutting in the plant, you must recollect that it is to form the foundation of the next year's enlarged growth, and therefore it requires thinning as well as cutting back. You have to make allowance for a new and fresh growth from the old wood. As the plants will require all the air they can have safely, it is better to remove them to a pit or frame, where they can be left wholly uncovered when necessary, and be kept from cold, excess of wet, high wind, and the very hot and bright sun. As soon as there is any danger of frost they must be removed to the greenhouse, and abundant room must be given to the plants, to prevent them being drawn up. As the new growth comes you must rub off the shoots that are in each other's way, and stop any that are growing too vigorously, for the great object is to preserve a uniformity in the growth, and if any shoot or shoots take to growing faster than the rest, the discrepancy would be increased as the plant advanced. As soon as the shoots attain a length sufficient to leave two good joints, the tops may be taken off, and the plant may undergo the same treatment in every respect that is given to the younger ones. The abundance of shoots will enable you to choose which you leave on; and by occasionally examining them, and taking off the superfluous growth, the plants will become as handsome on a large scale as the smaller ones; but to follow the fashion of the day, you will be forced to place short sticks to the branches, so as to regulate the flowers, which would otherwise be thick in some places and thin in others; whereas it is considered necessary to have them constrained with a little gentle violence if required, so as to be at pretty nearly equal distances all over the plant

alike. It ought to be mentioned, that by the beginning of April the pots will be full of roots, and that, large as the pots may be, these enormous plants will require a further shift; and the only difficulty there is to encounter is in lifting about and handling such cumbrous and weighty subjects.

TEMPERATURE.

The geranium should not be subject to checks and changes. In winter time the skill of the gardener is tried most, for there is no little difficulty in regulating the temperature so as to keep out frost without the house being at times too warm. It would be well if the temperature never exceeded 40° of a night and 50° by day; but this is too often reversed. The usual plan is to let them take their chance by day, if there is no frost, and to light fires in the evening, by which the temperature of the house is raised in the dark and lowered by daylight. In summer time, it is true, the sun raises the temperature by day; but the geranium makes its growth all the winter, when for weeks together we have no sun shining upon the house. The expense of firing is, we suspect, the ruling influence; and if not altogether so, the trouble regulates the rest; but certain it is that no man lights a fire if he can help it. With geraniums it is desirable to avoid fire heat altogether as much as it is possible; but so slight a frost is fatal to this plant, that a man dare not risk it in the night, when the glass is getting down too near the freezing point by day; but it would be far better to use fire by day, so as to warm the house, and let the closing suffice for all the early parts of the night, than keep them very cool all the day and light fires at night. In the culture of these plants it is worth while to have a rolling cloth to come down the glass to the brick-work, so that it may be let down in the evening, instead of lighting fires, for it keeps in the natural warmth many hours, and if attended to at night, and at all times when frost is indicated, the plants would be saved from the necessity of fires, and be all the stronger and better for it. At the same time it must always be borne in mind, that thirty-two is the freezing point, at which they take great damage, if they are not killed outright, and therefore that regard must be had to the

prevention of too near an approach to that, either by covering or gentle fires, begun, however, in the morning, and not at night; so also provision must be made that the artificial heat does not raise the temperature above 45° by night at the most.

NECESSITY OF ROOM AND VENTILATION.

Few people who have not paid attention to the subject, are aware of the necessity of giving the plants room; many crowd the pots together so closely that the plants all but touch each other. There is hardly anything more detrimental to their general health. It is true, they live, and bloom, and, to ordinary observers, appear very pretty; but place one of them by the side of a truly healthy plant, and you will observe such a contrast as to excite astonishment; the foliage paler, the leaves smaller, the stems slighter and weaker altogether, the flowers thin and distorted; such are the fruits of keeping plants too close together. There ought to be as much room between one plant and another as half the diameter of the plant, that light and air may not be impeded, but the entire plant be open to the influence of both; nothing should induce a grower to crowd them, for it is better to throw half away, and grow the other half well, than to spoil all.

FUMIGATING THE PLANTS.

There is no positive rule for this; it should be done frequently, without waiting for the appearance of the aphides, for when they come it is too late; mischief is done in a short time by the green fly, even before it can be noticed, except with strict examination. The best mode of fumigating is with coarse strong tobacco, in proper fumigating bellows; but it can also be done with some hot charcoal in a flower-pot, and putting the tobacco in it; or by putting the nozzle of the common bellows to a hole in the side of a flower-pot, such as are made in many pots for extra drainage, and so blowing the lighted tobacco. The smoke must fill the house completely, even to the ground, which it touches last. The gardener may operate very well till the smoke fills the upper part down to his head; he may then sit down, and puff again until it reaches him so much lower; and he may kneel, and at length lay down, and find no quantity of smoke next the

ground. However, the most complete way is to have a hole in the door, through which the nozzle of the fumigating bellows may be put, and they can be worked from the outside without the slightest inconvenience. Care should be taken not to overdo it. It may be easily seen when the house is properly filled with smoke. The next morning they should be syringed with a fine rose. Some fumigate once a month; others very closely examine for the green fly, so that one could hardly escape them, and only fumigate when they discover them; it is, however, indispensable that they get well smoked when the buds show, and before they bloom, however much or little they may have been attended to in this particular before.

WATERING.

All plants should be watered with liquid of the same temperature as the house they are in. Those who are economical collect all the rain water from the roofs of their houses, and convey it into tanks within the building, for rain water is far better than all other, and river water is next; but thousands of plants are destroyed in health by the application of spring water from wells. When you are obliged to use spring water, it ought to be exposed to the sun for days in shallow vessels; but it is far better to avoid it, if possible, and to economize the rain water as the best possible way of providing a proper moisture for plants of all sorts. The geraniums do not like too much wet; they had better temporarily flag than have moisture when they do not want it, for an excess causes the leaves to turn colour and to fall, and even the best of the leaves to be spotted with a sort of mildew, much after the manner of carnations when they get the damp; examine them well, therefore, before you water, and convince yourself they require it before you give it them.

CUTTING IN AND STRIKING CUTTINGS.

Geraniums in healthy growth, and particularly when they are being grown for exhibitions, can always spare cuttings; for what with stopping the branches and thinning out the lateral shoots when too crowded, there is never any want of cuttings if we wish to propagate; but there is a period for cutting in all plants without necessarily

forming monsters, as we have already described. When they have done blooming, and, if necessary, done seeding, let the plants have no more water for some days, and when the soil is pretty dry, cut them in closer than we directed for the monster plants; in fact, they should be cut in so close as to allow of only sufficient eyes to form a new moderate sized plant next year. They should then be kept dry a few days, to heal their wounds, and afterwards trimmed at the roots; all the matted fibres removed, and even the strong roots cut back a little, and the plants, so trimmed, repotted in much smaller pots. These may be shut up close in a frame a few days, but bottom heat, if it can be had, hastens the making of new roots, when they may be preserved through the winter as we have already described. The cuttings from these plants may be struck almost like weeds; the shortest joint will make a plant, and it is only necessary to cut the stem at bottom, close to the base of a leaf, and place it in the soil with one joint above; nay, the geranium strikes so freely, that if it answered any good purpose they will grow from eyes like the grape vine. Pots full of these cuttings may be covered with bell glasses; or the space that a hand-glass would cover may be stuck full of them on the common border: they may be rapidly struck in a gentle common hot-bed, [or out of doors in a shaded border;] but it would be more difficult to prevent their striking than to strike them, place them in soil where you can or where you will. In the ordinary way they will strike under a month; but, assisted with bottom heat and close covering, they will root in ten or twelve days. They are then potted in sixty-sized pots, and watered and attended till they are ready to send out, or kept till they have thoroughly rooted round the pots.

RAISING FROM SEED.

The proper choice of seeding plants must be made according to what you want; half a dozen of the best varieties may be planted out in the open air in May, when the weather is settled, and where no others are near; or they may be inoculated with any sorts you wish to work from for improvements. For instance, you take well shaped thick petalled flowers to seed from; take

out all the anthers as soon as you can get hold of them, and when the pistil becomes glutinous take the anthers from some flower with a good quality that you wish to obtain on thick petalled flowers, and put the dust on the pistil of those you are to seed from. The most easy method of conveying the powder from the anthers of a flower is on a camel's-hair pencil; but it is the same thing in effect if you take the flower and touch the pistil of the seeding plant with the anthers, for enough powder is sure to leave the anthers and attach itself to the pistil to answer all the purposes of fertilization. The plants to be seeded will need little or no care, unless they have to be covered in very stormy weather. The truss may be gathered when the seed is nearly ripe; and by hanging it up, or laying it down in the sun, it will ripen, and the seed must be looked after if any of it escapes; to prevent this, however, as it dries, it is well to put it in shallow boxes or drawers to dry. This seed may be sown in the spring, in wide-mouthed pots of soil such as we have recommended for general culture. The seeds should be sown thinly, so as not to crowd each other, because you are quite as likely to waste a good one as a bad one in the event of losing any; place it in the green-house, or, if you like to hasten it, you may raise it on a hot-bed; but where the geraniums are preparing for bloom, and the temperature is moderate, will do very well. Place a bell glass over the seeds till they vegetate, when they may have air, which you can give by uncovering them. As soon as they are up and large enough to take hold of, prick them out an inch apart in other large pots, for a great body of earth is far less liable to changes than a small one, and therefore there is less danger of their suffering from dryness. Here they may keep growing until they begin to be crowded, when they may be put into sixty-sized pots, well drained, and filled with the compost recommended for the ordinary culture. When these pots are filled with roots, change them to forty-eight-sized pots, and from them, as soon as necessary, to size thirty-two, in which they may bloom, when you give away, or throw away all that are not better than you possess already; and if you cannot do this very

readily, cut off all the blooms, to prevent their spoiling any seed that may be disposed to set on the best of the flowers in the collection. For all the good they are, they may be turned into the open air, or into frames; or, if you have a house devoted to seedlings, and there are but few good out of a large number, the good ones may be removed to another house, and those which are of no other use may be left in the place they occupy, to use for cut flowers, as people are not hypercritical as to the forms of a geranium in a bouquet. When a seedling is found very good, so that there is no doubt about eventually naming and propagating it, the sooner all the spare pieces can be taken off and struck, the better, because cuttings struck early become plants in time to propagate from again; and from a single cutting taken in April or May many others can be obtained before the autumn; while the original plant, denuded of some of its branches, pushes into fresh growth, and affords the means of rapidly increasing the variety.

PROPERTIES OF THE GERANIUM OR PELARGONIUM.

1. The petals should be thick, broad, blunt, and smooth at the edges, and slightly cupped.

2. The flower should be circular, higher at the edges than in the centre (so as to form rather a hollow, though by no means a deeply cupped bloom,) without puckering or frilling; and where the petals lap over each other, the indentation caused by the join should be hardly perceptible.

3. The petals should lie close on each other, so as to appear a whole flower rather than a five-petalled flower.

4. The stem should be straight, strong, elastic, carrying the blooms well above the foliage. The footstalks of the individual flowers should be stiff, and of sufficient length to allow the flowers to show themselves in an even head, fitting compactly edge to edge, and forming a uniform bold truss.

5. The colour should be bright and dense, whether it be scarlet, crimson, rose colour, purple, lilac, or any of the modifications; the spots on the upper petals should be boldly contrasted with the ground, and the darker the better: both upper petals

should be alike, both side petals alike, and the lower petal uniform.

6. All white grounds should be very pure; and the colours, no matter what they be, on the white, should be decided, well defined, and by no means flush into the white.

7. The spots on the upper petals, or the marks in any other, should not break through to the edge.

8. Colours being a matter of taste, do not affect the real properties so much as other points, unless it be on the score of novelty; on this ground a bright scarlet would be desirable, and a black spot. We have plenty of approaches to both, but none very near.

9. The plant should be shrubby in its habit, the foliage close, and of a rich bright green, the joints short and strong, able to support themselves in every part without assistance. The flower should be large, not less than five in a truss, and come at the end of every shoot.

The obvious faults of most geraniums are, long and pointed lower petals; uneven, twisted, notched, or puckered edges; long footstalks, which make the truss loose and open; weak shoots, and stalks that will not hold up the flowers without propping, which destroys the appearance of the plant altogether; small leaves and long joints, which make the plant open, the habit gawky, and the foliage poor.

REMARKS ON THE CULTURE OF NATIVE GRAPES.

BY D. NEW-YORK.

THE best of our native grapes—such as the Isabella and Catawba—are not equal in flavor, it must be admitted, to the finest table grapes of Europe; yet, when thoroughly ripened by the hot sun of the middle states, they are a valuable fruit for the dessert in autumn; and as they are easily kept after maturity till February or March, they must be considered one of the most desirable of our hardy fruits.

Some remarks on their cultivation, based upon a practice of ten years past, may, perhaps, interest some of your readers not already skilled in this matter.

After training the native grapes in a great variety of modes, I must be allowed to give it as my opinion that where large and regular crops of the finest fruit is desired, the vine must be kept within comparatively narrow bounds. Our native grapes have greater natural luxuriance than the European species; I have myself had one vine to produce 1200 perfect clusters in a single year; and have known several

cases of single Isabella vines covering whole arbors of 40 or 50 feet in length. Notwithstanding this, there cannot be a doubt that small vines, kept within narrow bounds, and closely and regularly pruned, will give a much larger product, and bear more uniform crops, on a given space of ground, than large vines occupying the same soil and space. In the latter, you have the difficulty of a large amount of old wood to contend against, and the extra quantity of manure which grown large plants require to produce a corresponding effect upon them.

It is, perhaps, not easy to give a satisfactory limit for the size of the vines for open trellis culture; but my favorite size (for an upright trellis, 7 feet high,) is 6 feet apart from vine to vine. Placed at this distance, I do not find the least trouble in making my vines produce a given number of bunches every season, without in the least exhausting the roots, so far as I am yet able to judge.

The favorite specific manure for the grape-vine with me, is *wood ashes*. I am in the habit of making a hollow basin, some three feet in diameter, around each vine, after stirring the surface in the spring. In this basin I scatter fresh wood ashes, at the rate of half a peck to each vine. As soon as the vines commence growing, I begin to give them weekly rations of soap-suds,—one of the very best fertilizers for the native grape. My kitchen servants are instructed to save all the soap-suds of the weekly washing, and pour them into a hogshead, sunk in the ground to receive them. These soap-suds are afterwards poured into the basins formed at the base of each vine; and, dissolving a portion of the ashes, (deposited there in the spring,) they carry down to the roots just the specific stimulus that the grape-vine most needs.

I have found, by actual experiment, that vines treated in this way, of the same age and size, and in the same soil with other similar vines, treated in the common mode of culture, uniformly bear fruit from *one-third to one-half* larger in size, and usually richer and higher flavored in quality. The product well repays one for the extra labor, to say nothing of increased beauty of appearance.

I very much prefer *autumn* to any other season for making the annual pruning of

the grape-vine. If made in the autumn, as soon as the leaves drop, you have the advantage of an accumulation in the remaining buds of all the stock of nourishment, [organizable matter—ED.,] at that season, distributed by the plant to each and every bud and portion of its system. By the first of December, if not earlier in this climate, all this process of accumulation and distribution is over; and, consequently, in pruning in February and March you cut off, with the young wood, a considerable part of the nourishment which would have been deposited in the remaining buds at early autumn pruning. This advantage is very visible to the eye in the growth and production of vines pruned at the two seasons; and it is greatly in favor of autumn pruning.

A number of persons, I find, are planting *seeds* of the Isabella and Catawba grapes, in order to obtain new sorts. They will, many of them, be disappointed (like myself) in finding the seedlings only producing grapes inferior and more pulpy than the parents. A much more certain and satisfactory mode, is to fertilize the blossoms of the native grapes with pollen of the Black Hamburgh, Muscadine, and other first rate foreign sorts. I am, sir,

Respectfully yours, D.

New-York, July, 1848.

NEW MIXTURE TO DRIVE AWAY INSECTS.

BY AN OLD GARDENER, PHILADELPHIA.

SIR—I see in your Horticulturist the inquiry, started by several of your correspondents,—what is the best means of driving away or destroying rose bugs, striped bugs, and other troublesome insects, deleterious in the garden?

I have been in the habit of using, for three years or more, a mixture, first made known to me by a German farmer, that I am much pleased with. In almost every case in which I have applied it, success has followed its application; and the insects

have been driven away, and the plants preserved.

The mixture is a very simple one. Take some dry ground *plaster of Paris*, [gypsum,] spread it on the barn floor, and sprinkle over it, from a bottle, *spirits of turpentine*—turning over the plaster so as to slightly *moisten* the whole. Let it dry, and then rub it or pound it slightly till it is quite fine again.

Now it is ready for use; and to use it, you have only to scatter it over the leaves or stems of plants liable to be infested or attacked by insects. In order to have it adhere to the foliage, it is best to use it early in the morning, while the leaves are wet with dew.

I have found it effectually to protect

melons and cucumbers from the striped bug, grape-vines from the small white fly, and even drive away the rose bug from such plants as it was applied to. If you will publish an account of it, perhaps your readers will make a trial of its virtues for themselves. Your humble servant,

AN OLD GARDENER.

Philadelphia, July 16, 1843.

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[We have had an account lately of the use of a mixture, quite similar to this, from a farmer and orchardist in Westchester co., N. Y. It is certainly deserving of attention. Oil of turpentine is very offensive to most insects; and the mixture described owes its virtue, no doubt, to the turpentine odor. Ed.]

NEW OR RARE FRUITS THAT HAVE PROVED EXCELLENT.

We have much satisfaction in recommending the following varieties of fruit. They have now all been proved in this climate, and we can recommend them with confidence to the attention of fruit growers:

I. LARGE EARLY APRICOT.

This variety, received by us from RIVERS, the English nurseryman, has fruited for three years past in our garden; and we consider it a great acquisition to our standard fruits. The fruit is perfectly ripe now, (July 10th.) Its form and size are accurately represented in the accompanying outline. Its beauty of colour, however, we cannot give here. This is deep orange, with a spotted red cheek, of unusual brilliancy; indeed, the specimens which we have had this season, on a common standard tree, have exceeded in beauty those of any other variety of apricot that we have hitherto seen. The flavor of this variety is

excellent, very much superior to the *Roman* and *Masculine*,—the early sorts, in common cultivation. It proves an abundant bearer in the strong, heavy soil of our fruit garden, and certainly, regarding the very early period of its maturity,—while the Moorpark and other fine apricots are yet quite green. It must be admitted to be, as yet, the largest, handsomest, and best of early apricots.

In Languedoc, and the south of France, where this variety is thought to have originated, it is called *Abricot de St. Jean*, from its ripening there about St. John's day, (26th of June.) With us, it comes to maturity along with the *Roman* and *Dubois' Early*; that is, during the first ten days of July. The description of this variety, in our *Fruits and Fruit Trees*, is quite correct. The flesh, however, is of a rather pale orange colour.

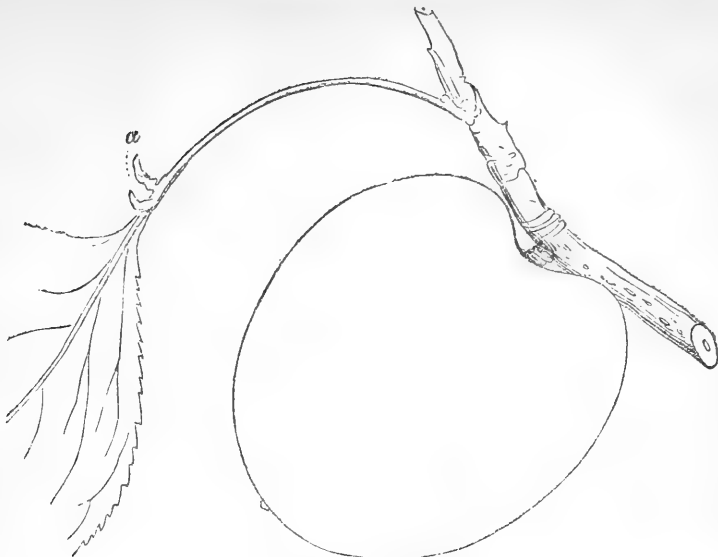


Fig. 15.—Large Early Apricot.

The Large Early Apricot is pretty readily distinguished by its foliage, which is large ; its leaves tapering more towards the foot-stalks than most others, and frequently marked with little ear-like appendages, (Fig. 15, *a*,) which occupy the positions of the usual leaf glands.

II. BURR'S NEW PINE STRAWBERRY.

We have this season had an opportunity of tasting this new strawberry, which is admitted to be the finest of the different seedlings produced by Mr. John Burr of Columbus, Ohio, and which especially elicited the commendations of the Cincinnati Horticultural Society last season.

We do not hesitate to pronounce it one of the best, and, perhaps, the very best, American strawberry yet raised ; and, comparing our own opinion with those of intelligent growers, both at the east and west, we think there is little doubt that *Burr's New Pine* will take its place among the three or four very best sorts yet known for general cultivation in this climate.

It is a *pistillate* variety, and, therefore, bears large crops. The berries are borne in large clusters, and are of very uniform size. The plant also appears to be completely hardy, and the foliage is handsome and vigorous.

The following is the pomological description of this variety : Berries large—but scarcely of the largest size—of regular and uniform shape, short, conical in outline ; colour light crimson, or a pale *strawberry-colour* ; flavor sweet, rich and aromatic,—much superior in this respect to *Hovey's Seedling*, and many other large varieties. Flowers pistillate.

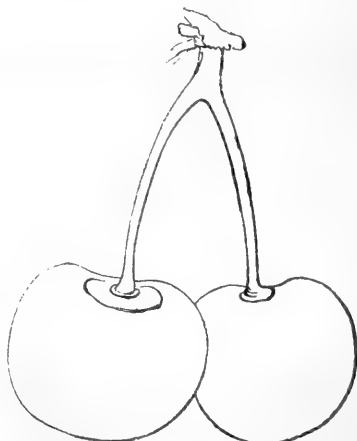
We find that Mr. BARRY, of the *Genesee Farmer*, says of this variety—"at this time, we think, all things considered, that it has no superior ; and those who plant it in well prepared soil, cannot fail to reap a rich and abundant crop." Our correspondent, Mr. HUNTSMAN, of Flushing, also gives it a high character in the present number of this journal.

Fig. 16.—*Burr's New Pine Strawberry.*

III. BUTTNER'S YELLOW CHERRY.

This novel cherry is noticed in our work on fruits, with a short description by Mr. THOMPSON, of the London Hort. Society. At that time, it had not borne in this country. We have had a good crop of Buttner's Yellow, however, this season, and can with confidence speak of it as a capital cherry, well worthy of the attention of amateurs. Our tree is yet young, but bears moderate crops.

Buttner's Yellow Cherry has two merits to recommend it, in addition to its good quality. In the first place, it is the only decidedly *yellow* cherry that we have seen, and is, therefore, a novelty in the dessert; in the second place, its season of maturity is as late, or a few days later, than *Downer's Red*; that is, a week or ten days after the other Bigarreau and Heart cherries are gone. It cannot, therefore, but be considered a decided acquisition. The tree

Fig. 17.—*Buttner's Yellow Cherry.*

is one of large and vigorous growth. The accompanying outline, (Fig. 17,) was taken from specimens before us while we write. The description is as follows :

Fruit rather large, obtuse, heart-shaped, distinctly flattened at the insertion of the



Fig. 18 —Cherry Currant.

stalk. Colour pure creamy yellow, (the skin somewhat opaque.) Stalk rather short and thick. Flesh yellowish white, firm, crisp and juicy, with a sweet and agreeable flavor. Stone quite small, ovate.

IV. THE CHERRY CURRANT.

This really extraordinary currant was no-

ticed in vol. 1, p. 439, of this journal. It has since been imported by a number of nurserymen and amateurs, but has, as yet, only fruited (so far as we have heard,) in one place in this country,—the nursery of Messrs. PARSONS of Flushing, N. Y.

We are glad to find that this variety proves to be fully equal to the expectations formed of it on first perusing the account of it, given in the French *Annales*. We give an outline of the fruit, and there can be little doubt that it will attain still larger size, upon stronger and well established plants.

The origin of the Cherry Currant is somewhat obscure. It was received from Italy, mixed with other common currants, by M. SENECLANGE, of the department of Loire. When it produced fruit, it was named the Cherry Currant, (*Groseille cerise*,) in allusion to the unusually large size of the berries. The fruit is double as large as that of the other currants, round, of a light red colour, and borne in clusters rather shorter than those of the common Dutch currant. The shrub is luxuriant in its growth, the foliage very large, and appears to be perfectly hardy. It ripens its fruit at the usual season, and the flavor is quite acid—decidedly more so than the Red Dutch currant.

PROF. SHEPARD ON AGRICULTURAL SCHOOLS.

[WE have lately received, from Prof. C. U. SHEPARD, of Amherst college, a copy of an address, delivered by him at Springfield and Northampton, before the agricultural societies of those portions of Massachusetts.

The address is one highly interesting throughout. But the concluding part of it

demands more than a passing comment. It is devoted to the subject of *agricultural schools*; a subject which is largely occupying the public mind at the present moment, and which, to the rural population of the United States, is one of far more vital importance than the present generation of farmers are in the habit of considering it.

Prof. SHEPARD has discussed it with so much point, that we take the liberty of laying his remarks before our readers.

Quite a number of the agricultural schools, which have been started in various parts of the country, have entirely failed. This failure has no doubt arisen, in many cases, from a want of proper organization and direction in the schools themselves; but, we think, still more frequently from a want of sufficient funds or endowment to place them on a secure and proper basis at the outset. An agricultural school can be of little benefit in this country, except it embodies the soundest practical and scientific ability in the country. Smatterers in science and slipshod farmers are not the materials out of which to form an institution to teach improved modes of husbandry; modes by which land may be made more productive, and capital profitably employed. And it may be laid down as an axiom, that persons of real ability, whether as successful practical farmers or scientific men, will never be found in any schools where their ability is not well paid for. The best talent in any department of human knowledge or labor, in America, always finds its reward. The ablest chemist commands the largest salary; the best practical farmer raises the largest crops.

Now, we think it may be further stated, as a fact not admitting of dispute, that men of this stamp will not leave their avocations—respectable and profitable as they are—and undertake any institution where their talents are indifferently paid for, and the success and position of the institution doubtful and uncertain. Hence, agricultural schools generally, cannot succeed, unless they are well endowed in the outset, either by public or private means,—with funds sufficient to command men of the

first abilities; we mean men of tried practical ability—not speculative men.

For this reason, we are strongly in favor of having at least one large agricultural school in each one of the great agricultural states, supported at the cost of such state. The great body of the people of such a state is composed of farmers—its great interest is agriculture; and, next to *common schools*, (which have for years past been so liberally supported by some of the states,) we conceive no public education more important, or better worthy of being put upon the public charge, than agricultural schools.

ROSSELL COLT, Esq., of New-Jersey, has, we learn, petitioned Congress lately to set apart and appropriate a certain portion of the *public lands* for the use of each state,* the income from the sales of which shall be used for the maintenance of a great public farm school in such state. We see no objection to this plan, which, without imposing any direct tax, would speedily furnish those ample means by which alone, as we believe, really useful and practical institutions of this kind can be maintained. ED.]

But leaving the more elementary schools, I proceed to speak with more detail of the agricultural school, a topic which is beginning to take a deep hold of the public mind.

Many persons appear to think, that our college course can be so modified, as to fill at the same time, the literary and the agricultural requisition. It does not appear to me, that such a plan is likely to succeed. Heretofore most certainly, whatever else the college has afforded, it has turned out few practical farmers. Even those, who enter as well drilled and expert in farming operations, by the time they reach the terminus of their course, if they do justice to the college studies and become thoroughly imbued with the spirit of the place, become rather awkward on the farm; and it very

* Ten miles square to each state.

soon begins to appear, that to be college-learned, is to be farm-unlearned. And I hardly know of men more to be pitied, than those who from feeble health or any other cause, have failed in a professional or literary career (to prepare for which, the college course is chiefly intended) and who are obliged to fall back upon the farm for a livelihood. In all the practical labors of husbandry, they seem to have lost the art of taking hold of things by the smooth handle; and their blunders in live-stock, are almost sure to make them the laughing-stock of their neighbors. Now there is nothing surprising in this, if we consider the object of college education. The college is not intended for persons who are to occupy themselves much with physical matters. Even the boys understand this perfectly well; and it is to be feared, that not a few importune their parents to gain admission there from no higher motive, than to get clear of muscular effort; though it is generally observed, that such are equally shy of intellectual exertion. No: the college is a place for the training of persons, who, if they are ever to work at all, must do so, through the medium of mind, as scholars, as statesmen, as clergymen, or in the medical or legal profession. Nothing can be more unreasonable than to suppose, that we see the practical use of the sciences to mankind, in the lives of our college graduates. Why, the college course is chiefly made up of a study of the literature and philosophy of the ancients, to whom our sciences were a dead letter, and of the elements of mathematics and geometry, to which is added a sprinkling of metaphysics and logic, and considerable drilling in English composition and elocution. On these studies, and good morals, the discipline and the honors of the college turn. Lectures are given indeed, on some of the modern sciences, but less with a view to their bearing on the arts of life, than to the purpose of intellectual discipline and general accomplishment. No teacher would be tolerated, who should more than incidentally allude to any common use, like that of economical profit, that could be made of them. The college is not the place for learning rules of thrift. It pre-supposes a degree of independence; and in cases where

this is not enjoyed, it takes it for granted, that money-making is to be held as a secondary consideration with all who partake of its benefits. The college graduate is never to seek glory in wealth, but in knowledge, and in usefulness of a lofty kind to his fellow-men. This I take to be the true theory of the college, and of literary life in general. Both hold themselves at the most respectful remove possible, from all contact with matter, and the every day labors of men engaged in the arts. I might perhaps afford you an illustration of the truth of this representation. A president of one of these institutions, on being shown through the physical department of another, the best endowed in natural sciences of any in the country, on taking leave of the distinguished professor, who had been his conductor, begged to know of what conceivable use to mankind, were all such provisions! Here was a distinguished scholar, at the head of an American college, who had got so completely away from matter, as not to be conscious, that a knowledge of its properties was of the least utility to mankind!

Take one other exemplification of the difficulty, which the mere literary man experiences, in estimating aright, the practical business of life. One of the most eminent of American scholars, and at the same a distinguished statesman, argued a short time ago in Congress, against the employment of the Smithsonian fund, for purposes of practical advantage,—using the word practical here, in its common acceptation, and of course, in opposition to its college and literary use. He entertained the House of Representatives with a strain of fine thoughts, expressed in lofty diction, in favor of appropriating the money, to the purchase of a library. In the course of his remarks, he insisted, that “a laboratory was a mere charnel house, and that experiments are but the dry bones of science.” He would direct the attention of mankind away from matter “to those great subjects,” as he was pleased to style them, “which are not bounded by the three dimensions, which are not ponderable, not cognizable by any of the senses.” In the halls of the American Congress, in the year of our Lord eighteen hundred and forty-six, asked this polished orator, in dead earnest, “What

have our boasted researches taught us to accomplish in the industrial arts, that the cunning workmen of Egypt and Tyre and Greece could not do, three thousand years ago?" And to crown the climax, he claimed, that our independence was declared and maintained by scholars! Listen to the declaration, ye shades of Washington—the farmer and civil engineer, of Franklin—the printer and electrician, and of Jefferson—the man who has left this testimony of scholastic pursuits,—“the business of life,” says he, “is with matter, that gives tangible results; handling that, we come at the knowledge of the axe, the plough, the steamboat, and everything useful in life; but from metaphysical speculations, I have never seen one useful result.” Fortunately the argument of the scholar, on the occasion, fell into something very like the laboratory he so much abhorred, where it was first analyzed, and then weighed in the balance of common sense. And the result of the whole was, that in spite of it, that noblest bequest of a practical chemist, to a practical people, was saved, from what would have been little better, than a sequestration.

The time has fairly arrived, when society should understand what it has a right to expect from the college; when it should know this at least, that it is not the most likely place to look for amelioration in the practical arts, especially in that of agriculture. The college has enough to do, to qualify for head-work. There must be some other institution, in which young men can be taught to work on matter, as well as upon mind. To send a lad to college whom you intend to make a farmer, is putting him on the wrong track. The four years spent there, would be an episode, a parenthesis in the preparation for active life on a farm. I say not that it would disqualify him from leading the life of a gentleman, provided his means were sufficiently ample; but it would assuredly be a bad thing for him, ever to take off his gloves on a farm, after he had touched his diploma.*

* In these remarks upon the inadequacy of the college proper, for preparing persons for the practice of the arts, I trust that I shall not be thought wanting in a proper regard for these institutions. Having, either as pupil or teacher, passed the greatest part of my life in connection with the college, I can but accord to it, the highest respect and even filial affection.

I should shrink from the attempt even, to draw out the plan of such an institution, as is required to meet the wants of this greatest of all the branches of practical industry. To frame such a scheme, will demand no small share of deliberation and forecast. No institutions are now in existence, upon which they can be directly modeled. In this state of the case, it may not perhaps be deemed impertinent for me, to direct the attention of this audience, to what has been done in Europe in behalf of an allied art or profession, which sustains a very close relation to agriculture. I allude to that of mining. Like agriculture, it requires the use of numerous sciences. As the farmer must know his crops, together with many other plants which are either useless or noxious, so the miner must be able to recognize his ores, and those associated mineral substances, which are either worthless or injurious. As the farmer must understand his soils and subsoils, and the connection of both with the rock formations in which they originated, so the miner must comprehend the various strata, which include his veins and beds of ore. The different processes employed in harvesting and preparing crops for the markets, are in some sense, analogous to the raising and dressing of ores; while draining, surveying, and architecture, are required in both. Farming and mining both make a constant and similar use of chemistry, in the work of analysis. There is indeed this difference, that the labors of the miner are attended with much greater risks as to remuneration, and with greatly increased dangers to health and life. But it is reasonable, nevertheless, that institutions expressly contrived for the benefit of the miner, and which have been nearly a century in existence, should throw some light upon those we would invent for the use of the farmer.

The most ancient of these institutions, is in fact, the school of agriculture. It is a venerable institution: but this veneration is solely on account of the important, and truly noble end it accomplishes, in laying the foundation of professional or literary eminence; and not on account of its direct service to the manual arts. These it never has embraced within its plan; nor is it easy to see how any change can ever be made in this respect, which shall fully answer the wants of practical men: although there is nothing to prevent the existence of an agricultural school in immediate connection with a college, whose scientific faculty might even assist in a school of arts, and in this way, materially abridge the expensiveness of such an institution.

that of Freiberg, in Saxony. It was founded in 1765 by Prince Xaver, and early placed under the control of the celebrated mineralogist, Werner. At the present time, it has eleven professors, on the following branches: viz. General chemistry, technical chemistry, analytical chemistry, mineralogy and geology in all their branches, natural philosophy, the pure and the higher mathematics, mathematics applied, mining machinery, general surveying and practical geometry, mining jurisprudence and correspondence, and the art of mining. In addition to the corps of professors, it has a surveyor, a draftsman, an assay-master, and a teacher of French. Candidates for admission must produce certificates of health, character, and a certain proficiency in the common branches of school education. A limited number are supported by the government. The lectures open in October and terminate in July, the vacations being devoted to mining excursions. The instruction is communicated by lectures, illustrated by figures on the black-board, by experiments, by specimens and by models, as the nature of the subjects may require. Mondays are devoted to the inspection of mines in the vicinity,—there being within a circuit of three miles, no less than 100; in which, are about 200 vertical shafts and 250,000 fathoms of adit, wherein may be viewed every species of timbering and masonry. The pupils are required to keep a fair copy of their notes, and of all their lectures. At the end of each month, they undergo a rigid examination upon all their studies; and at the close of each year, are rewarded according to the result. The course extends through a period of four years; and is admirably contrived for insuring correct practice, in every detail of the art, and at the same time, a thorough comprehension of the principles on which that practice depends.

Another of these institutions, most worthy perhaps of being described, was founded in 1770, at Schemnitz in Hungary, by the Empress, Maria Theresa, by whom it was also endowed, with great liberality. During the 3d year of the course at Schemnitz, the pupils are required on one day of each week, to go through a portion of some

mine, and to make out a written report of everything that concerns its condition. Some of the poorer young men, even take jobs in the mine, which serve in part, to defray their expenses. The semi-annual examinations are held, not for the vain purpose of showing off, but for determining in the strictest manner, what each pupil has learned. The questions are written on small slips of paper, and are drawn out by lot by the students, who give the answers on the spot. The most successful are rewarded, by having the charge of their education almost wholly remitted; while those who fall below a certain standard, are forced to relinquish all hope of ever obtaining government employ. The number of pupils in this institution is, at present, between three and four hundred. * * * *

But I return to the agricultural school, upon whose office I have endeavored to throw some light, by describing what has been done by foreign institutions, in behalf of the sister art of mining. Its general province and scope must, after what has been said, suggest themselves to my hearers. Without attempting to enumerate the branches it should teach, or the number of instructors it should have, I will only venture to state my hearty concurrence in the suggestion, which some of the leading papers in this state have made, that it be located near the region of the Connecticut valley; and that there be connected with it, a tract of land sufficiently ample for cultivating every variety of crop, and for rearing every species of stock, suited to our climate; and still farther, to add, that it should have cabinets rich in the necessary apparatus, a botanic garden, representing all the great families of plants, a laboratory in which the work of analysis should never stop, and a severity of discipline equal to that of West Point.

It would be an easy task to go on pointing out other advantages of such an institution, but I dare not presume farther upon your patience, than to allude to one or two, in addition to those already hinted at, in the progress of this discourse. It would enable many a lad, not born on the farm, the sons of men in professional life, or of merchants and artisans, to prepare them-

selves for agricultural pursuits. It would be a safety-valve to the college, now disproportionately thronged, and would sometimes free it of a youth, whose frolicsome career betrays, that it was not purely intellectual occupation for which nature intended him, but rather, that admirable combination of hand-work with head-work, which the farm so well supplies.

And besides the improved methods of husbandry, which would be likely to grow out of such an institution, may we not reasonably calculate upon its affording important aid in contending with those diseases, to which the most important plants and fruits seem liable, as the result of long, artificial cultivation. Consider for a moment, the present position of society from the threatened loss of the potato crop. Here is a disease in the tuber of this plant, that thus far, defies all scrutiny. We have neither found its cause nor its remedy. And yet, as in a time of pestilence among men, few are so absurd as to look for mitigation or relief, except from the resources of science; so here, the most obtuse are probably convinced, that our only hope is in a similar direction. And what a splendid gift would it be, if science shall be able to restore to us the independence we possessed in this plant, prior to the year 1840! For the potato is a vegetable, which the rich man knows not how to forego; and one, which places the poor man above want. With a shelter from the weather, and one or two acres of ground to plant with this tuber, man may subsist at almost any distance from the miller, the baker, the butcher, and I may almost add, the doctor. It suits all tastes, flourishes in nearly all climates, and is eminently nutritious and healthful. Its cultivation demands but little labor, and when the earth has ripened the tubers, they are harvested without trouble, and cooked without expense. A few faggots in summer will boil them, and in winter the necessary heat is supplied without expense. There is no waste of time in the processes of milling, sifting, kneading, baking, seasoning, jointing or carving. There is nothing deficient nor superfluous in a well boiled potato. As soon as it is cooked, it opens by chinks, lets fall its thin pellicle upon the platter, and with a little

salt, butter or milk, is ready for the unfatigued appetite of the hungry man. Start not back with surprise, at the idea of subsisting upon the potato alone, ye who think it necessary to load your tables with all the dainty viands of the market, with fish, flesh and fowl, seasoned with oils and spices, and eaten perhaps with wines,—start not back, I say, with feigned disgust, until you are able to display in your own pampered persons, a firmer muscle, a more beau ideal outline, and a healthier red, than the potato-fed peasantry of Ireland and Scotland once showed you, as you passed their cabin doors! No; the chemical physiologist will tell you, that the well ripened potato, when properly cooked, contains every element, that man requires for nutrition; and in the best proportions, in which they are found in any plant whatever. There is the abounding supply of starch, for enabling him to maintain the process of breathing, and for generating the necessary warmth of body; there is the nitrogen for contributing to the growth and renovation of organs; the lime and the phosphorus for the bones, and all the salts which a healthy circulation demands. In fine, the potato may well be called the universal plant; and the disease under which it now labors, is therefore, an universal calamity. If any agricultural institution should ever be so fortunate as to make us acquainted with the means of controlling it, its name would quickly rank by the side of the proudest universities; and if the great discovery should proceed from a single individual, his name would live, when those of the greatest generals and conquerors, have become as uncouth and strange to human utterance, as their deeds were unfriendly and opposed to human happiness.

It is indeed a pleasing task, to anticipate the glories of the new day of improvement and success, which is dawning upon the cultivators of the soil. Already has the era of amelioration arrived. The number and the zeal of associations, like yours, are significant omens. The results before and around us, are most encouraging; and the high standard of improvement everywhere visible, is a sure presage of ultimate triumph. A new vigor has been infused into the farmer's life; and though an old

and venerable occupation, it has, is some sort, taken on a new youth; and this youth seems inspired with insatiable desires and the most exulting hope. Be encouraged then with the old German proverb, that what we strive after in youth, we shall attain to fullness in old age; and concerning which, Goethe, the poet and the naturalist, has given this fine commentary, "that our wishes are presentiments of the faculties which lie within us, and harbingers of that, which we shall be in a condition to perform." Thus, I easily persuade myself, it will prove in your case, in the distinguished zeal you are exhibiting for the improvement of your profession.

When your example shall be adopted, throughout the counties of New-England, a new order of thrift and intelligence will be discerned among the rural population. The more certain success, which will then wait upon the husbandman, shall supercede the farther necessity for his emigration towards the setting sun; and the higher intelligence and refinement, which shall then prevail, will cease to urge with such undesirable force, such troops of our most promising country youth, to seek their fortunes in city life; where alas, the temptations to vice and the rush of competition, so often frustrate all their hopes. Then will it be seen, that the most infertile of our districts, will be competent to sustain in comfort and wealth even, a vastly augmented population. Then will it most clearly appear, that there exists no real incompatibility, between the labors of the field and a certain degree of mental culture and simple refinement; but on the contrary, that the uncontaminated air of heaven, which the farmer breathes, the beautiful forms with which nature everywhere surrounds him, in her productions, and the constant witness, which he is, in his labors, of the beneficial operation of great natural laws, powerfully conspire to the formation of a pure and noble character; and may well justify the expectation, that the country will continue to accomplish more fully in time to come, than she has done even in the past, her destiny, of supplying to science and literature her most successful proficients, to the learned professions their most

distinguished ornaments, and to our great towns their most valued citizens; while she is still able to retain enough of solid worth and attractions at home, to enable her to make reprisals on the city, by recovering to her own blissful retirement, many a man, who in youth, with sound constitution and upright purpose, entered the great mart of trade, but who amid all his successes kept alive enough of nature in his soul, to bring him back again to her peaceful retreats, in the evening of his days.

To the spirit of agricultural improvement, we look also, with hope, that it will extinguish all lingering remains of military ambition; and that under its benign and humanizing sway, we shall become more emulous of re-conquering the wastes within our borders, than of adding new wildernesses to our already too extended domain. What room is there for brilliant achievement even in New-England, in expelling those unsightly enemies of the husbandman, that have been permitted to overrun so large a portion of our fair inheritance. Turn your eyes, ye martial spirits of Massachusetts, to that army of golden rods, waving their yellow plumes upon a thousand hills; see yonder dauntless array of life-everlastings, that crowd the wide campaigns; see our highways, and the contiguous fields, beset by insolent hordes of mullein and thistles, and fair meadows, where once flourished the golden grain, now covered with base daisies and sorrel. What fields of glory await you, at your very doors. To dispossess these daring invaders, shall yield you a hundred fold more of true glory, than to follow the stripes and stars from Labrador to Cape Horn! In the coming age of improvement, who shall say, that to subdue and eradicate one of these pests to the farmer, will not bring as bright a chaplet of fame, as it now can do, to trample down a human foe? Who shall say, that he who shall prove himself foremost in peaceful labors like these that exalt human happiness, may not reap the highest gift of a grateful country, as surely as he who holds himself ready to barter his conscience in the shambles of party, or risk his life in the barbarous perils of war?

REVIEW.

TRANSACTIONS OF THE NEW-YORK STATE AGRICULTURAL SOCIETY — with an abstract of the *Proceedings of the County Agricultural Societies*. Vol. vii, 1847. [1 vol., 8vo., 799 pages.]

THIS is a most excellent volume, replete with valuable practical essays, reports of successful experiments, details of skilful farming operations, agricultural addresses, &c., besides the report of the proceedings of the state society.

Altogether, it is one of the most valuable contributions to scientific and practical agriculture that has been produced in the United States; and its general distribution among the people cannot fail to have a most beneficial effect.

After some familiarity with the difficulty of drawing out and making public the most valuable information, viz., that possessed by the soundest practical and scientific men in the country, we feel bound to say that we think Mr. JOHNSON, the present able secretary of the society, within whose province this volume especially falls, has performed his duty most wisely and skilfully. We are, indeed, willing to go much farther, and say that Mr. JOHNSON's exertions have effected more for the cause of agriculture, in this and the previous vols. of Transactions, than all the other labors of the society put together, have done in the same time. Those who know how much the importance and influence of a society like this depends on the intelligence and energy of one, two or three of its leading officers,—men who must be earnestly devoted to the cause, will rank as highly as ourselves the invaluable services of the present secretary of the state society.

Among the most valuable articles, we notice one by Professor JOHNSTON, of Eng-

land, "*On the Economical Use of Bones as a Manure, and on their Solution in Sulphuric Acid.*"

Our horticultural readers are, perhaps, even more fully aware than most farmers of the value of bones. *Phosphate of lime* is so essential an organic constituent in the *pear*, and some other fruit trees, that no good orchardist or gardener will henceforth be guilty of the extravagance of *wasting bones*.

The difficulty, however, hitherto experienced by many persons, has been to bring the bones, easily collected upon every farm and about every slaughter-house, to a fit condition for applying to the land. Bone mills are only to be found here and there; and in some parts of the country, the cost of transportation of bone-dust has been so considerable as to put a stop to its use. Fortunately, this difficulty has been overcome lately by a cheap, simple, and rapid mode of *dissolving* bones by sulphuric acid, now largely employed by English agriculturists. The mode of effecting this is so important to nine-tenths of our readers, that we extract the formula from Professor JOHNSTON's essay:

§ 6. *Methods adopted for Increasing the sensible Effect of Bones.*

Without referring much to the effect which bones might theoretically be expected to produce, it has been observed by practical men that they may be made to act more quickly and more beneficially by the adoption of certain previous precautions, such as,—

1. *Reducing them to fine powder.* I have already alluded to the fact ascertained by experience, that the finer the powder, the more immediate and the more sensible the effect of bones. But practical men were afraid to venture too far in diminishing the weight of manure, added to the soil. Bulk was considered to enter as an element into the fertilizing capabilities of any substance. Many leases even prohibit the addition of less than 16 or 20 bushels of bones, when used alone in raising turnips. But

under the guidance of science, both tenants and proprietors will, by and by, learn to estimate more correctly what the crops really carry off, and what the soil therefore requires. Thus a strictly scientific economy will be established, and no more of any thing will be added to his fields than the farmer knows and *understands* to be necessary to maintain them in a state of permanent fertility.

2. *Heating the bones.* In some districts their action in hastening forward the young turnip, and bringing it quickly into rough leaf, where it is safe from the attacks of the fly, is increased by laying the bones in a heap, and covering them over with earth, for a week or ten days before they are drilled into the land. Left in this state, they heat, soften, and begin to change or decompose; and thus, when laid in the drills near the seed, they are ready to furnish nourishment to the young plant as soon as the roots first thrust themselves downwards from the sprouting seed.

3. *Fermenting them with dung*, or the same decomposition is effected and carried further by mixing the bones with farm yard manure, and leaving the mixture awhile to ferment. It was the result of trials made by thirteen different persons, and which are recorded in the Doncaster report, that a given weight of bones, when mixed and fermented with farm yard manure, invariably produced a more beneficial effect, than the same weight of dry-bone dust, applied to the same crop and upon the same soil.

The advantage which results from these several methods, arises from the effects which they produce, either in diminishing the mechanical coherence of the particles of the bone, or in altering by incipient decomposition, the chemical state of the organic matter it contains. None of them, however, sufficiently effect these objects, though I do not doubt that fine bone-dust, fermented for two or three months with farm-yard manure, and occasionally turned over, would be brought into a condition more nearly approaching to guano, in its fertilizing virtue, than any other form of bones which has hitherto been generally employed.

§ 7. *Decomposing and Dissolving Bones by means of Sulphuric Acid.*

But another mode of preparing bones has recently been introduced, and for two or three years has been extensively employed as a part of the ordinary husbandry, especially by some of the Scottish farmers. This mode consists in decomposing, and more or less dissolving bones in sulphuric acid, (oil of vitriol). This may be done in various ways, and the prepared bones may either be applied in a liquid state with a watering cart, or may be dried and sowed with a drilling machine, or broad cast, like ordinary bone or rape dust.

a. The bones in the form of bone dust, or where bone mills are not at hand, simply broken in pieces with a hammer, may be put into a cast iron, stone, earthen-ware, or strong wooden vessel, mixed with half their weight of boiling water, and then with half their weight of the strong oil of vitriol of the shops, stirring constantly while the latter is slowly poured in. A powerful boiling up takes place which gradually subsides.

By occasional stirring, the whole assumes the ap-

pearance of a thick paste, the pieces of bone gradually disappear, and after a week or ten days the whole may be taken out and mixed with a little charcoal powder, charred peat, saw dust or fine dry earth, to make it dry enough to pass through the drill, and may thus be immediately applied to the land. It would, however, be better to prepare the bones a month at least before using them, and lay them up in a heap for a while, with a view to their more perfect decomposition. When the pieces of bone are large, this is especially desirable, as otherwise they will not be fully decomposed without a larger addition both of water and acid.

b. Or the acid and bones as above, may, after a couple of days, be mixed with a quantity of light, friable soil, and laid up into a heap for seven or eight weeks with occasional turning. The bones thus heated, decompose and dry up, so as to be ready for putting into the drills without farther preparation. This method, however, requires more acid, and it is not unusual in employing it, to take equal weights of acid and bones. It may be, some practical men, indeed, employ invariably equal weights of acid and bones, while others are satisfied by mixing the bones with one-third or even one-fourth of their weight of acid. I would myself employ not less than a half.

c. Or equal weights of bones in the form of dust, of boiling water and of acid* may be mixed together and occasionally stirred for a week or ten days, and when the particles of bone have nearly disappeared, from 50 to 100 times more water may be added to the mixture, and the liquid thus diluted may be applied by a water cart. If it is to be used upon grass-land in the spring, or to young corn, it will be safer to dilute it with 200 waters, but fifty waters (by weight,) will be enough if it is to be applied to turnip drills. A common watering cart used for other liquid manures, will serve for the former purpose—for applying it to the drills a very ingenious addition of tubes to this cart has been contrived by Mr. Wagstaff and employed by him under the direction of the Duke of Richmond at Gordon castle.

This method of applying the bones in the liquid form, is, no doubt the most perfect, but it is also the most troublesome and expensive, and may not, therefore, come so soon into general use, though it may ultimately prove the most profitable.

Instead of sulphuric acid, the muriatic acid or spirits of salt, has been, indeed, was first, tried for the dissolution of bones, but the former appears at present, for several reasons, to be preferred.

We will only add to the foregoing, that a number of experiments with dissolved bones were made by the Highland Society of Scotland, the result of which were:—

“1. That four, and in some cases, even two bushels of dissolved bones, will produce as good a crop of turnips as sixteen or

* A gallon of water weighs 10lbs, a gallon of acid 17 or 18lbs.

twenty bushels applied in the usual form, [dry bone-dust.] The crops also start more quickly, and grow more rapidly.

"2. That the more complete the state of solution or subdivision of the bones, the greater the effect. Hence, when applied in the liquid state, the benefit is most apparent."

Other persons besides ourselves, who cultivate heavy compact soils, have no doubt been quite disappointed in the want of effect of bone manure upon such soils, compared with their admirable action on lighter and more porous soils. Prof. JOHNSTON has suggested, in the following paragraphs, the cause of this want of action on heavy soils, and the remedy:

§ 10. *Ought any other substances to be mixed with the Dissolved Bones?*

Bones are known to exercise a comparatively feeble and uncertain action upon stiff and undrained clays, and it may, therefore, be reasonably asked by some if the action of dissolved bones will be more certain upon such soils than the bones in their natural state? We may, I think, answer this in the affirmative, since the principal cause of the less conspicuous effect of bones upon such soils is to be found in their tenacity and coldness, by which the particles of bones are shut out from the air, and their decomposition is retarded.

But, inasmuch as bones do not contain the whole of the substances which plants require, and as some of those which are present in bones, the salts of soda, for example, are in small quantity only, it may be reasonably asked again if the dissolved bones would not be improved, and their efficacy increased, and rendered more *sure*, were an addition of certain substances to be made to them. Of this I think there can be little doubt, though the necessity and nature of such additions will depend much upon the nature of the soil to which they are to be applied. A small per centage of pearl ash or wood ashes, of nitrate of soda, or common salt, and a sulphate of magnesia—5 lbs. each of the potash and soda salts, and 10 lbs. of the magnesia salt to each 100 lbs. of bones—would render the mixture more suited to every soil and crop. At the same time, if the soil like those formed from the felspar rocks abound in potash, or like those which border the sea, be rich in soda, or like those which owe their origin to the slates, or to the magnesian limestones, contain already too much magnesia, any addition to these several substances would obviously be thrown away. The principle of adding such things being recognised as sound, the knowledge and discretion of the farmer must be exercised in determining how far such additions are likely to be profitable, or to make a small preliminary experiment by way of trial.

Among other valuable essays, we would particularly notice the following: *On Subsoil Ploughing*, by JOHN MALLORY, of Yates county; *Experiments in Feeding Swine*, by J. M. BACON, Bordentown, N. J.; *Experiments in the Management of Cheese Dairies*, by ALONZO L. FISH, of Herkimer co.; *Experiments in Draining*, by Messrs. SPOOR, of Troy, and WOOLSEY of Long-Island; Prof. NORTON's excellent chemico-agricultural address, and an interesting paper by Mr. GOODRICH, of Utica, on the potato rot.

Besides these, there is a great deal of valuable information on butter making, sheep husbandry, &c. &c., besides a great amount of valuable practical details of the modes of growing farm crops, practiced by the most successful farmers.

There is considerable horticultural information also collected in this volume. The committee on fruits, who gave last year a list of select apples, which they recommended for general cultivation in this state, have this year continued their labors by presenting select lists of other fruits, with descriptions and figures of the same, copied from our work on *Fruits*. We annex a list of the sorts recommended by them, that our readers may see what varieties are most popular in the northern portion of the state.

PEARS.—Madeleine, Bloodgood, Dearborn's Seedling, Bartlett, Fondante d'Automne, Seckel, White Doyenne, Swan's Orange, Louise Bonne de Jersey, Stevens' Genesee, Beurre Bose, Gray Doyenne, Washington, Beurre d'Aremberg, Winter Nelis, Glout Moreau, Vicar of Winkfield.

PLUMS.—Jefferson, Green Gage, Washington, Huling's Supurb, Schenectady Catherine, Bleecker's Gage, Lawrence's Favorite, Columbia, Prince's Imperial Gage, Coe's Golden Drop, Prune d'Agen, Peach Plumb, Denniston's Albany Beauty, Denniston's Red.

PEACHES.—Early Tillottson, Grosse Mignonne, Cooledge's Favorite, Red Rareriipe, Royal George, Crawford's Early, Malta, George 4th, Brevoort, Morris' White Rareriipe.

CHERRIES.—May Duke, Elton, Florence, Black Tartarian.

STRAWBERRIES.—Hovey's Seedling, Large Early Scarlet, Swainstone Seedling.

GRAPES.—Isabella and Catawba.

A new winter apple, called the "Wagener Apple," has received a premium from the society, and is recommended for cultivation, as a variety "remarkable for its agreeable taste and flavor." It originated near Penn Yan, Yates county, N. Y.

From the discussions at the various meetings of the society, we extract some interesting remarks, which afford good evidence of the adaptation of central and western New-York for *fruit growing*, and the profits of this species of cultivation.

"Mr. PARDEE, from Wayne, gave lucid details of the fruit trade in the county from which he came. Something like 50,000 barrels of apples had been shipped from Palmyra, and there was a large section of the county which found its place of export in other villages on the canal; such as Newark, Lyons, Clyde. The average net profit on the cultivation of fruit he estimated at from \$100 to \$150 per acre.

In addition to the trade in green fruit, over 10,000 barrels of dried apples had been purchased by the dealers in Palmyra during the winter. The fruit in many varieties was much larger and finer than those in the vicinity of the North River.

The growing of peaches and plums was also a large item. At the same time that the dried apples had been an article of purchase, nearly 1000 bushels of dried peaches had been bought. He had in his own experience noticed that the overloaded tree was always the bearer of but indifferent fruit.—The influence of the winds on Lake Ontario softened the climate and kept off the frost, and he could not but characterise Wayne County as one of the first for fruit in the State. The Virgalieu [Doyenne] pear attains to great richness, and a size much larger than any he had seen in the markets of New-York. It grows well, and the yield is abundant. The Catawba and Isabella grape are very superior."

"Mr. JOHNSON said from a statement received from Oneida County, he had learned several interesting statistics of the trade in apples. A part of four towns only, out of many in that county, had shipped the present season 18,000 barrels, at a price varying from 62½ cts. to \$1. In one orchard, planted with cultivated fruits, of about six acres, there had been sent in 1845, 1000 barrels to market, for which had been realized \$1000; in 1846 the returns were not so large, but in 1847, the crop was again large, about 1000 barrels, which gave from six acres about \$1000, a larger income than could be realized from any grain crop. Another gentleman had one Virgalieu pear tree from which he sold fruit in 1847, to the amount of \$50. In Orleans county he had been told that the *fruit trade had become one of the most profitable sources of revenue to the farmers*; they shipped their fruit, and it became an object there, as it should be everywhere, to select fruit of that character which

should command the highest price in market. They begin to understand that it costs less to raise good fruit than bad. One dollar a barrel [in the interior of the State] in the field, for the home market, is a good evidence of its value. When he was abroad, in London, he had seen apples in Covent Garden Market, very handsomely arranged under a glass case, and labelled "American Newtown Pippins," and when he desired to taste them, he found that the price of each was 6d. stg! It is not alone with flour and beef and pork that we supply England, but there is not in all England such apples as ours. American apples are set before their friends on all occasions, by distinguished families on all great occasions. A market is also opening to us in the West Indies, which will require large supplies. The New-England States must look to us in a measure, for their supply of fruit. The Southern and Western States buy largely; there markets are open to our farmers, and the growth of fruit, of good fruit, deserves their best attention. The Western States are competing with us fearfully for the grain market, and it needs but our attention to have the flag of the Empire State wave triumphantly over the fruit culture. New-York, is probably, as a whole, the best fruit growing region in the world.

It is all important for those who send their apples to market to have them *properly packed*. The apples from the Pelham farm sell for \$6 a barrel in New-York, while Western fruit of equally good flavor, of the same varieties, frequently does not command over \$2; this arises from the character which has been given to apples packed by Mr. PELL. Purchasers *know* what they buy, and if our cultivators of choice apples would take the same care, and have their barrels *branded* with their name, they would receive a like return, on the *character* of their brand being established."

It would be easy to occupy many pages of this journal with valuable extracts from this volume of *Transactions*. But such of our readers as are most interested in the subjects embraced within its scope, will doubtless find access to the work itself.

After bestowing most cheerfully this well-earned praise upon the *printed* "Transactions" of the state society, we can scarcely leave the subject without saying a few words about one of its most important transactions which is annually *acted*, not printed—we mean the *great fairs* or exhibitions held, for some years past, in September.

The great agricultural wealth and resources of the "Empire State," as New-York is often termed, brings to these annual fairs great numbers of persons from

other states, and even from the most distant parts of the Union. As many as 30,000 or 40,000 persons are frequently present. It is a fact, not to be denied, that those persons have frequently returned home completely and justly disappointed in these exhibitions,—disappointed in the aggregate amount of articles shown,—disappointed in their quality,—and, most of all, disappointed in the arrangement and mode of conducting the fair.

Last year, this was especially the case. In some respects, as we learned from a large number of those who attended the exhibition, the agricultural display was not superior to that of many county societies; while the horticultural show was inferior, in the variety and quality of the products, to that of many weekly exhibitions of the Massachusetts Horticultural Society. In the latter department, indeed, the shows of the state society have been deteriorating for several years past, until they reached a point at Saratoga quite below criticism.

We mention this, not to censure the officers of the society, or the committees of management, all of whom, on the contrary, deserve praise for the efforts made by them to render the exhibitions as complete as possible; but to point out what, in our humble judgment, is a *capital error* in the regulations of the society, and which we predict, so long as it remains in force, will effectually prevent its annual fairs from fairly representing the agricultural skill and resources of the state; in fact, from being anything more than a large, discordant, second or third-rate show, equally unsatisfactory to the exhibitor and the spectator.

We allude, of course, to that regulation of the society which compels it to change the locality of its annual fair, every season, from Albany to Auburn, Rochester, Syracuse, Saratoga, &c. &c.

Every one at all familiar with the management of those agricultural or horticultural societies, whose shows are really satisfactory, very well knows that the direction or management of these exhibitions is a matter of much *acquired skill and experience*; that it is always done by a few persons, thoroughly familiar from long practice with the necessary details, so that all mistakes, confusion and oversights are prevented; so that every valuable product, within the reach of the society, is *drawn out* for exhibition, and all indifferent or unworthy articles are at once rejected by competent judges. In other words, to conduct a great fair of this kind well, it is indispensable that the *working committees should be persons thoroughly experienced, and fully competent to the task in hand.*

Now what is the state of things at the state shows? Exactly the reverse of all this. One year, for instance, the fair is held at Albany. Great efforts are made; a large quantity of farm and garden products are brought together, a good portion of which is, however, of very indifferent quality,—while from proper inducements not having been presented, a great deal of *materiel* of the first class, has not been brought out at all. The committees appointed are almost all new to their task,—some entirely unfit for it, some not working men, and therefore useless,—and nearly all entirely inexperienced, and therefore incompetent. The result is, that the fair is indifferently arranged, great numbers of exhibitors are dissatisfied, and the next year withhold their articles altogether, to the great injury of the subsequent shows.

By the time the Fair is over, those of the committee who are really working men, have found out the short-comings of the exhibitions and have seen the weak points of their own management; have ascertained

how, if the thing were to be repeated, *they* could present it to the public in a far more satisfactory condition. In other words, they have earned a little valuable experience.— But this amounts to nothing. The Society, instead of availing itself of this experience thus acquired at Albany or any other given point, throws it all away, by abandoning that place and holding its Fair the succeeding year at some other point in the State 100 or 200 miles distant. The arrangements are put into the hands of fresh local committees, who are as inexperienced as the first, and therefore almost wholly ignorant of what is to be done and how to do it; consequently the exhibition is a jumble; articles are carried there and lost sight of, or placed entirely out of view; 30,000 people are brought together in some small town where there is accommodation for only 5,000; rail-roads out of the usual routes are overloaded with passengers, who are detained hours where they ought to be minutes, and the consequence is that instead of a well ordered, satisfactory, and instructive display of the best products of the soil, four-fifths of the spectators leave the ground fully impressed that the State Fairs are a “great humbug.”

Now we may be entirely wrong in our opinion, but it seems very clear to us and to others with whom we have conversed, that these miserable exhibitions, which are almost valueless for practical good, and are certain sooner or later if persisted in, to ruin the credit of the State Society, might be exchanged for Shows of which the State might well be proud, and for an influence most decidedly beneficial to the cause of agriculture, by one simple reform, to wit, in the manner of holding them.

This is nothing more than to confine them to two central and accessible points, choosing the neighborhoods of those cities properly

located, and affording abundant accommodation for the thousands of visitors who resort to the Fair: places from which the accumulated knowledge may be easily distributed to all other parts of the State. Take for example Albany and Rochester, (or Buffalo)—the two most central and accessible cities in the great agricultural portions of the State. Let the Annual Fair be held *for 5 years* at Albany, and then for the next 5 years at Rochester. Let competent, intelligent working committees be employed and *well paid* by the Society to ascertain and bring out all the finest products of the State; and, when collected, to arrange the whole systematically and satisfactorily, so that everything may be seen, and every person shall have an opportunity to see—so that there shall be no fine stock injured for want of shelter, nor fruits nor plants of the commonest sorts left unexhibited or wrongly labelled, and, above all, no crowd of human beings decoyed to a village where there is neither food nor lodging for one-half their number!

We are greatly mistaken if such a plan as we have pointed out, would not speedily be followed by admirable shows, a most decidedly beneficial influence, (at first on the agriculture of that portion of the State nearest the point fixed upon, and gradually on the whole State,) and a large and increasing usefulness and popularity of the State Society itself. The Fair being held for 5 years in one place, its managers would soon become experienced, the competitors, breeders of stock, and growers of crops would learn what is the standard of value; what the criterion of excellence, and would direct their attention, year after year to the attainment of these results. Instead of a miscellaneous assemblage of products composed in a great part of *accidental excellencies*, we should see collections composed

wholly of articles of real merit—the product of the highest intelligence and skill of the agricultural body of the State—applied directly to the object in view.

We have doubtless said enough on this subject—more, we fear, than will be palatable to all our friends interested. But we have said no more than the duty, as an or-

gan of strong public feeling on this subject, has made it necessary for us to say—and, while we give our heartiest commendation to the labors of the State Society in the late volume of its *Transactions*, we must again repeat that there are great and lamentable defects in its Annual Shows, which may be, and should, be speedily remedied.

DOMESTIC NOTICES.

ONONDAGA PEAR ON QUINCE STOCK.—*A. J. Downing, Esq.*—Dear Sir: The Onondaga, or Swan's Orange Pear, has been very favorably noticed, both in the *Horticulturist*, and in *Hovey's Magazine*, at different times during the two last years; and in some instances it has received the unqualified appellation of "one of our very best pears," "the king of pears," &c. &c. But whether it will ultimately prove equal to all that has been said in its favor, or whether its good qualities, as a desert fruit, will come up to the standard which has been assigned it, remains yet to be seen. We may however, even now, I presume, accord to it the merit of being a new fruit of good quality, and consequently any information, either in relation to the quality of the fruit or the habits of the tree, its growth, culture, &c. can not fail of being interesting to the Pomologist. It is also important for the cultivator to know whether it will succeed upon the quince. Upon this latter point the following is the result of my own practice.

In the spring of 1847, I received from ELLWANGER & BARRY, of Rochester, N. Y., five small trees of this variety, of one year's growth from the graft, portions of which were used for scions. These scions were worked upon almost every variety of pear stocks, from small seedlings of less than half an inch in diameter to the leading shoots of strong, healthy trees from two to four inches in diameter. They were also grafted upon vigorous, healthy, bearing pear trees, originally grafted upon the quince, and were consequently "double worked" on the quince. Those upon the pear, in every instance, made, last season, and now continue to make, strong growth, with extremely healthy looking foliage; whilst those that were double worked upon the quince made very indifferent growth last season, with very little thus far this season, the foliage now having a pale, sickly appearance, and hardly to be recognized as the same variety with those growing upon the pear.

In the autumn of 1847, I also inoculated this variety, both upon the pear and quince. The difference of growth in this case is much more apparent than in the other. Whilst the inoculations on the pear have made a growth at the present time of 12 to 18 inches, looking extremely healthy and

vigorous, those upon the quince have only made from ten to twelve inches, having a very weak and sickly appearance, with a large proportion of total failures. The *Buerré d'Anjou*, *Louise Bonne of Jersey*, *Glout Morceau*, *Duchesse d'Angoulême*, and other varieties, which were worked upon the quince at the same time, and in the adjoining rows on each side, have made a uniform growth of 24 to 30 inches, looking very strong and fine, with scarcely a single failure.

From my own limited experience, as above detailed, I should therefore apprehend that this pear will not succeed well upon the quince; or at least, but very indifferently; and cultivators, I think, would do well not to work it very extensively upon that stock.

The variety of quince used by me for stocks, is the Angers, [or apple quince, Ed.] which is undoubtedly the best for that purpose. Respectfully,
Henry H. Cropo. New-Bedford, June 15th, 1848.

BELLE MAGNIFIQUE CHERRY.—We find on further trial that we have not done justice to this cherry in our work on Fruits. It has borne a good crop with us this season, and we find it one of the most valuable of all the acid cherries. It is in flavor much milder or less acid than the common Kentish (pie cherry) or Morellos—double the size of the Kentish, of a handsome light red, bears good crops, and ripens among the late sorts—a week after the late Kentish. For cooking or preserving it is one of the very best sorts, and we are inclined to rank it before the Carnation or the Plumstone Morello—two of the most popular of the acid cherries.

CUTTING OUT FIRE BLIGHT.—We have been troubled in this neighborhood with that form of the pear tree blight termed by you "insect blight," and I wish to say to your readers that they cannot too highly rate the advantage of promptly cutting out every limb attacked, down to the fresh, sound wood, as soon as it appears. My own place is between that of two neighbors, both of whom are fruit-growers, and both having about an equal number of pear trees in orchard or garden cultivation. One of them takes little or no care of his trees;

the other gives them more or less attention daily. Now mark the difference: The careless cultivator came to me yesterday morning, saying that he began to believe that he should have to abandon the pear culture, as half his trees were dying or dead of the blight. On going into his garden, I found *twenty* trees very badly attacked, and some of them already quite dead. He had not taken the trouble to amputate a single limb. Afterwards I went into the garden of my neighbor on the other side, and on going over his place found his trees all healthy, and not one dead. He told me that his trees had been even more badly attacked than —'s, (my first neighbor,) for he had taken some pains to examine the progress of the disease in the neighboring garden; but that he had spent *ten minutes per day*, for the past month, the first thing in the morning, in cutting out every bit of blight as soon as it made its appearance. The consequence was, that the blight had ceased in his trees, while it was still in full play in our neighbor's; and he had not lost a single tree, or even any considerable portion of a tree, while our neighbor had lost several outright. "Cutting and burning immediately," he therefore recommends as the only remedy yet known to him for the insect blight. Yours. *North River, July, 1848.*

GARDEN CULTURE OF INDIAN CORN.—Those of your readers who cultivate their vegetables in a contracted space, or in worn-out soil, will be glad to know, (if not already aware of it,) that guano acts most speedily and beautifully on the growth of this plant, applied in any stage of its growth, from the time it has two leaves till it is in full tassel.

I have a square of sweet corn, planted for the table, this year, on which I have tested it fairly. The ground was in fine order at planting. When the corn was 2 feet high, I applied, to one-half the patch, guano, at the rate of two table-spoonsfull to each hill. When the corn began to "top out," I repeated the dose, in both cases applying it after stirring the soil, and just before a rain. The effect is very satisfactory: I have not only gained in the size and quality of the ears on the part treated with guano, but I think after counting the rows, and comparing them, that I have also a third more ears in number, on all those plants on which the guano was used. These plants have alone attained to a size nearly half as large again as the others, with remarkably dark-green foliage. Yours. *S. Baltimore, July 14, 1848.*

FRUIT CULTURE AT THE SOUTH—*A. J. Downing, Esq.*—Dear Sir: I have had the pleasure of eating some peaches from the trees I got from the North and planted in February, 1847. The Early Tillotson began to ripen (was ripe) on the 10th day of this month, and from the few specimens on the trees this season, I think they will be as good as could be desired.

My Early Yorks are also ripe, and are splendid. I have from 600 to 700 peach trees planted in February, 1847, and I do not think finer trees can be found in any part of the world. I have them on a very level piece of land, and in handsome rows, and they are at this time a beautiful sight to look at. My apple trees are also doing very well indeed.

They were planted at the same time the peach trees were, and quite a number of them have from one to a dozen apples on them: fully two-thirds of the Early Harvest trees have fruit, which promises to be very fine. This is a variety that I am decidedly pleased with; it seems to be the very thing for this climate; every tree is just as strong and healthy as I could wish. The Baldwin, Yellow Bellefleur, Maiden's Blush, Dutch Mignonne, and Beauty of Kent, look very healthy, and I think will do well; the Fall Pippin, also.

My pear trees are doing pretty well. Those on quince stocks are doing very well, with the exception of the Paquency and Beurre d'Aumalis Panache: they will not thrive with me on quince stocks. The Glout Moreau seems to grow very reluctantly on quince roots. All the rest of my varieties appear to be pretty much at home on the quince. The Colmar d'Aremberg, however must take the palm thus far; it does very well indeed. I have two specimens of the fruit of this variety, on trees planted in February last, and they are splendid; I think they would at this time weigh about $\frac{1}{2}$ lb. each, and will no doubt be much larger when ripe.

I observe that my pears on quince have a great propensity to send out shoots from near the ground, and I have so far let them remain. Is this right, or not? Your friend. *R. H., Mobile, Ala., June 20, 1848.*

P. S. The *Black Prince* proves with me a first-rate strawberry, in all respects.

[All shoots below the graft should be taken off.—ED.]

GERMAN GREENS OR SIBERIAN KALE.—We have received from Messrs. THORNBURN & Co., Seedsmen, New-York, a package of seeds of this vegetable, which we shall test in our garden. The following memorandum of culture and use accompanied the package:—

"Sow broad-cast in August, in a light, rich, and rather moist soil, and protect slightly in winter like spinach. It is fit for use and should be cut early in the spring. It grows about the size of a large cabbage-lettuce, is of a purple color, and equal in tenderness and quality to *Brussels Sprouts*."

HORTICULTURE IN CAROLINA. * * * I have a vineyard of several acres attended by two French vignerons, but have not yet made wine. I hope, however, the rot will allow, to give wine making a trial the coming season. Foreign grapes, of which I have some twenty-five or thirty varieties, have entirely failed in open culture with me, with the exception of one—a *Red Chasselas* which is trained against my piazza, and is therefore sheltered against our heavy dews. It has borne the seasons without a sign of rot; next year I shall try the plan of one of your cheap vineries.

I do not mean to enter the list against Mr. LONGWORTH on the Strawberry question; that would be a fearful undertaking. But I really doubt whether the pistillate plants, duly intermixed with staminate, can produce heavier crops than those which I cultivate, and which are all staminate, (the Carolina pine.) I have a quarter of an acre

planted, from which I gathered, last year, *fourteen and a-half bushels*; and this season, one not quite so favorable, twelve bushels of fine fruit; some of the berries measuring $4\frac{3}{4}$ inches in circumference.

I have many fine peaches, natives of this part of the country, as well as others of French and northern origin. But I think ours will bear comparison with any of the imported varieties. Some of our early varieties are now ripening. *A. D. C., Aiken, S. C., June 10, 1848.*

.....
MR. LONGWORTH'S REPLY TO MR. PRINCE.—*Mr. Downing*—I have been absent from Cincinnati 4 months on account of ill health, and returned this morning. I discover by a letter from Mr. PRINCE, in this journal, that he deems he has a seedling staminate strawberry plant, perfect in both organs, and that the examination of his plants now in fruit would settle the question. We have for years, cultivated several staminate varieties, that some years bear a fair crop of fruit. The *Iowa* is of this character, and some have thought the blossom perfect in both organs. I have cultivated it for ten years, and its average has not been one sixth of a crop of perfect fruit. A horticulturist in this vicinity (Mr. SCHNEICKE) has raised a staminate plant, which he deems will entitle him to the premium I offered. It is under trial. He agrees with me in opinion, that *no correct opinion can be formed of its bearing character, in less than three years.*

From seed, not only staminate and pistillate plants are produced, but occasionally a chance plant, bearing both staminate and pistillate blossoms. A very large portion of the staminate never bear a single fruit, a portion of them occasionally bear a fair crop of fruit, and among these the *Boston Pine* and *Buist's Seedling* stand high. Yet after two years' careful cultivation by Mr. ERNST, they did not bear one-sixth of a crop of perfect fruit. The *Duke of Kent* and *Eberlin's Seedling*, bear both staminate and pistillate blossoms, and often bear a fair crop of fruit, and are well worthy of cultivation. But I do not believe that any staminate will average one-quarter as much perfect fruit as *Hovey's Seedling*. I will write again when in better health, between this and the next spring.—Yours, respectfully, *N. Longworth. Cincinnati, June 10, [not received till July 10. Ed.]*

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POMOLOGICAL QUERIES.—MR. DOWNING.—What pear that is a longer keeper than the *Beurré d'Arenberg*, would you recommend as best for orchard cultivation? (a.)

Is the Angers quince spoken of by Rivers in the May No. of the Horticulturist, (copied from the Eng. Gard. Mag.) the same as the Portugal quince recommended as the best stock for the pear, by S. G. Perkins and others; and is the latter the one commonly known in most nurseries in this country as the Portugal quince? (b.)

The cracking of the bark and exudation of gum on the finer varieties of cherries has been the subject of much remark among western fruit growers; and it has become a matter of great interest to know its "causes, treatment and cure," and especially what varieties are least and what most subject to it. Can you or some of your western correspondents, (Prof. Kirtland?) throw light upon the subject, and give lists as above suggested?

[Will Dr. Kirtland give his opinion? Ed.]

Have you yet thoroughly tested River's Early Amber Cherry? If so, please give its time of ripening compared with Elton and Knight's Early Black. Its size, productiveness, health of tree and general qualities for marketing, compared with the latter? (c.)

An answer in the Horticulturist to the above queries would oblige yours truly, *F. J. Scott. Toledo, O., July, 1848.*

ANSWERS.—(a.) If you wish to plant for market, the variety that will give you the greatest profit, is the *Black Pear of Worcester*. It keeps well, and bears very large crops, and though only a cooking pear brings large returns. Prince's St. Germain, is the best very late winter pear that we have seen.

(b.) The "Angers' quince spoken of by Mr. RIVERS, is the variety known as the *Apple or Orange Quince* in this country. We think Mr. RIVERS is right and Mr. PERKINS wrong in this matter. The Apple Quince is decidedly the best for stocks for dwarf pears. The sort frequently sold as the Portugal quince in this country, is only the apple or pear quince. (The Apple quince is the sort called "Portugal" quince in Western N. Y., about Rochester, &c.) We have the true Portugal growing in our grounds, which is a very distinct sort—the leaves are much larger and broader than those of the other quinces.

(c.) We are not prepared to speak positively yet about this cherry—another season will probably enable us to do so. But we think it has been overrated—as it appears to ripen later than, and not to be superior to, *Bauman's May*.—Ed.

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MASS. HORT. SOCIETY.—The reports of the weekly exhibitions of this Society for the past month, have not been received. At the business meeting of the Society on the 15th July, the committee appointed to confer with the Pennsylvania Hort. Society and the American Institute, in relation to the proposed Pomological Convention at New-York, reported that such a Convention had been deemed desirable, and that if it meet the views of the Society, the Committee ask authority to unite with the representatives of the above named Associations, in fixing on an early day in October next, and in making such further arrangements as they may deem necessary; which was adopted.

NEW-HAVEN COUNTY HORTICULTURAL SOCIETY.

This society holds an annual exhibition of fruits, flowers and vegetables, at New-Haven, on the 26th, 27th and 28th days of September next. The list of premiums is large, and calculated to bring out an extensive display. The Annual Fair of the Agricultural Society of the same county, is this year united with that of the Horticultural Society.

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ALBANY AND RENSSELAER HORT. SOCIETY.—

We have received the Report of the July exhibition of this Society, which was held at the Court-house in Troy, on the 12th, which we are compelled to omit for want of room. "The show," says the Secretary, "was in all respects, such as to satisfy the friends of the Society; and its officers are encouraged in their efforts by the spirit which is manifested, and the continued evidence of the growing taste among exhibitors in the various departments."

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BUGS ON VINES.—Having been much annoyed the present as well as the past seasons by the operation of the striped and other bugs upon squashes, cucumbers, melons, &c., I mention a fact that has come under my observation for the benefit of those who will take the trouble to make the experiment. About the hills containing the seeds, at the time of planting, were set 8 or 10 *onions*. These grew with the growth of the plants. The plants are now vigorous and fair, and have not been disturbed by any insect. This was the purpose for which the onions were set out, and the effect, the present season, has been as described. The onions are in condition to produce seed without prejudice to the other crop. Possibly the experiment may be worthy the attention of those who would avoid the trouble of planting their seeds several times over. *H. Danvers, July 1, 1848.* (Boston Cultivator.)

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THE STRAWBERRY QUESTION AGAIN.—In the July No. of your interesting periodical, pages 19 and 49, I find communications from your correspondents, "SENEX," and Mr. G. W. HUNTSMAN, on the "still vexed" strawberry question. Both gentlemen have done me the honor to notice my "Remarks on Strawberries," page 493, in the May No. of your last volume. Senex is sorry that his remarks on the question, "*Is fertilization necessary?*" page 172, in October No., "have been misunderstood;" and Mr. Huntsman has charged me with an "attempt" to set the strawberry question "at rest," to which charge I demur. I very much regret having misunderstood "Senex." In his article above mentioned, as to the necessity of fertilization, he asserted it to be "*sheer nonsense*" to say that either species or varieties of *Fragaria* were in any sense diœcious, and that in the order *Rosaceæ*, "there is not a diœcious plant." I entertain a different opinion, believing in the diœcious character of some species and many varieties of the strawberry; and also, that there is a diœcious plant in the order *Rosaceæ*, the very *Cliffortia* singled out by Senex. That I may be mistaken, "is conceding no more than is incident to the fallibility of all human speculations." The strawberry in its

diœcious character may be "*anomalous*," as Mr. HUNTSMAN terms it, and the discussion of the question has certainly become so. Confusion has got to be confounded, and may be worse ere a proper understanding is had upon the subject.

Dr. LINDLEY's authority is good; but I do not think it better than that of other botanists. His writings abundantly prove him to be as theoretical as the most ardent enthusiast could desire. I am aware that he does not use the word *diœcious* when speaking of the old Hautbois strawberry; but what of that? By GEORGE DON, no mean authority, some varieties of the strawberry are said to be *always* diœcious: why? Because of imperfect development of the inflorescence. I believe in the term as applied to *Fragaria* just so far and no farther. I regard the old Hautbois strawberry as diœcious, "in a strict sense," because the male flowers are borne on one root, the female on another; yet I contend not that it is rigidly so, as Senex desires me to understand *his* definitions for the rudiments of stamens or pistils are always present in every flower.

SENEX has stated unequivocally, "that there is not a diœcious plant in the order *Rosaceæ*." In "*Paxton's Botanical Dictionary*," *Cliffortia* is placed in that order, and Dr. Lindley assisted in preparing the work for the press. In the "*Nomenclator Botanicus*," of Steudel, *Cliffortia* is thus referred to; 2d ed., p. 385: *Cliffortia*, Lin. Spr. 1977. Dec. II. 595. "*Morilandia* Neck. Fam. Dryadacæ. *Spach*.—Fructifloræ, *Royle*.—*Passerineæ*, *Rul*.—*Rosaceæ*, *Adanson*, *Jussieu*.—*Sanguisorbææ*, *Sprenzel*.—*Hosacææ*, *Cliffortieæ*, *Reichenbach*, *Tricocææ*, Lin." Dr. Lindley has but copied *Sprenzel* if he has recently placed *Cliffortia* in *Sanguisorbææ*, and this latter order only differs from *Rosaceæ* in the apetalous flowers, and definite stamens, alternating with the segments of the calyx. In the genera *Sanguisorba*, the flowers are hermaphrodite; in *Poterium*, they are polygamous, and in *Cliffortia*, diœcious. Besides, in *Sanguisorbææ*, the flowers are usually *unisexual* from abortion.

But Senex may desire me to be more specific and to name one or two *diœcious* plants in the order *Rosaceæ*. I do so with pleasure, and point out to him the *Rubus australis*, and *Rubus chamæmoris*, the first a native of New-Zealand, the second of Europe, Siberia, and North America. The *R. chamæmoris*, (the mountain bramble,) is a valuable plant for crossing with the raspberry. The fruit is large, of a dull orange color, acid, mucilaginous, and agreeable to the taste.

In my "Remarks on Strawberries," in your May No., I had no thought of setting the (strawberry) "question at rest," though Mr. HUNTSMAN has said that I made the attempt to do so. Like him self, I claim to express opinions, and to state facts when I know them to be facts. This question of the diœcious character of the strawberry, has been prolific in bringing out opinions, facts, and conclusions, and withal a few *contradictions*; mistakes, as they may be termed. The four "propositions" of Mr. HUNTSMAN, "being universally true," does not make it a "mistake" to say that the diœcious character of the strawberry is the result of acci-

dent. If it be by the operation of a "*fixed law*," that the plants are diocious, there is no need of further discussion or dispute: the question is "at rest."

You have termed Mr. HUNTSMAN "a careful observer," and I agree with you, but he can make mistakes, with all his care. He may even *contradict* himself, and I trust he will pardon me for pointing out wherein he has done so. In Hovey's Magazine for February, 1844, page 53, Mr. HUNTSMAN thus expressed himself: "That there are some varieties of *pistillate* plants that will bear fruit without being in the neighborhood of *staminate* plants, is, I think, well authenticated: among which may be reckoned the Hudson's Bay, your (Hovey's) Seedling, and others." When Mr. HUNTSMAN wrote the above, he had been a "close observer for some time, of the habits and nature of the plant."

In July 1846, Mr. HUNTSMAN wrote another paper, inserted in your August No. for that year, and gave the results of his "*experiments*" with Hovey's Seedling. "These experiments," says he, "prove to my mind very conclusively, that Hovey's Seedling will not bear any fruit unless impregnated with some *staminate* variety. And the same may be said of other varieties in which the stamens are *obsolete*." Mr. HUNTSMAN had cultivated the "Hudson Bay for three years," yet not a berry did the plants bear, because they were "in a position" precluding impregnation. He confesses himself, therefore, forced to believe that *pistillate* plants, both wild and cultivated, are absolutely devoid of pollen, and cannot, therefore, produce any fruit except when impregnated by others." It was "*well authenticated*" in 1844, that some varieties of *pistillate* plants, such as Hudson's Bay, Hovey's Seedling, and others, *would bear fruit without impregnation*. It was proved "*conclusively*," in 1846, that neither the Hudson's Bay or Hovey's Seedling *would bear a single berry unless impregnated*, yet both these statements are made by a close and careful observer, one who has studied the "habits and nature of the (strawberry) plant," and "cultivates from two to three acres of the most approved kinds." "Horticulture (says Mr. DOWNING,) is not yet a *perfected*, but a *progressive* science; and we (Mr. D.) are in favor of progress." In other words, facts may contradict themselves according to circumstances. Hovey's Seedling "*was a perfect sort in its flower*;" What is it *now*? *Pistillate*, by very general assent. It has, therefore, *changed* its character. Were the changes said to have taken place in the *original* plants? They were. The only increase had been by *runners*. Therefore, by *this* testimony, normal or perfect blossoms can and do *change*. "Hovey's Seedling was an *imperfect* flowering variety, is so, and will ever remain so;" so says HOVEY himself. And Mr. HUNTSMAN's second fact or law is, that *hermaphrodite* and *pistillate* plants, "being increased by runners, do not vary their characters." I italicize the words do not.

This "strawberry question" has indeed assumed a Protean shape. How shall it be made plain enough for every man's comprehension? Is it a *fact* that Hovey's Seedling is both *staminate* and *pistillate*, according to cultivation? Is it a *fact*

that the original Seedling was perfect? Is it a *fact* that being originally *pistillate only*, it must ever remain so? Is there any necessity for sexual distinction in the cultivation of the strawberry? Is impregnation at all necessary? Can fruitfulness be insured by any *other* means? Are soil and manure all sufficient to make strawberry plants *fruitful*, be they hermaphrodite, *staminate*, or *pistillate*? Are *staminate* plants generally worthless? Are all or any of the so fulsomely praised (*by the raisers*) *new* varieties better or as good as the few sorts already of established reputation? I "*pause for a reply*." Respectfully, &c., W. W. VALK, M. D. *Flushing, L. I., July, 1848.*

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NEW-YORK STRAWBERRY MARKET.—A few particulars, only a slight portion, doubtless, of strawberry statistics, show that even from this comparatively small fruit much profit must often result. Thus, we find it stated, that in twenty-six days 4572 bushels were sold in New-York; 514 bushels in a single day. Over 80,000 baskets, equal to 833 bushels, and weighing, probably, twenty-five tons, were brought to that city in one day by the Erie railroad alone. The whole number of baskets sent to New-York by this road, in the course of the season, is 602,640; being an increase over the previous season of 212,640, or 24 per cent. The average value is about 3 cents per basket, the quantity 6247 bushels, and the weight 260 tons; so that the persons residing along the road are supposed to have received \$20,000 for strawberries in the last season. *Patent Office Report.*

ANSWERS TO CORRESPONDENTS.

STRAWBERRIES.—F. W., (Newark.) *Bishop's Orange* is a *pistillate* strawberry, and will not, therefore, bear well unless some *staminate* sort, such as Early Scarlet, is growing near it. If your bed of this sort which "grow luxuriantly and is literally covered with blossoms every spring, but bears no fruit," is an old bed, you had better make a new plantation from the runners, immediately, planting alongside a bed of some *staminate* sort; or if you prefer it, plant a strip of *staminates* at each end of the bed. If the bed is yet young, break up a small plot at each end of it (equal to one-fifth of the whole bed,) and plant it with Early Scarlet, Boston Pile, or any other good *staminate* variety, to fertilize the others.

C. B., (New Haven.) *The Black Prince* is one of the finest flavored of all large strawberries. There is scarcely any superior to it. *Wiley* is a great bearer, and gives great crops with trifling care, but the flavor is only second-rate. If you allow strawberry plants to run together in a mass, they will soon exhaust the soil and "run out," so as to bear very little. Beds grown in this way, should be broken up and re-planted every two years.

PEACH TREES.—M. W. Phillips, (Miss.) The rotting of the peaches in your young orchards, before maturity, we are inclined to attribute to their grossness and over-luxuriance. Apply shell lime, this autumn, as a top-dressing, in the two orchards affected, at the rate of 40 bushels to the acre, and

seed the ground or leave it unemployed for a couple of years. *R. P.*, (Philadelphia.) A bud from a tree diseased by the yellows, inserted in a perfectly healthy tree, will destroy the latter. We have proved this lately. *W. Thomas*. The three best peaches for your purpose are the following: True *Early York*, *George IV.*, *Brevoort*. *J. J.*, (Charleston, S. S.) This year seedling peach stocks are fit for budding as soon as the time arrives, (August and September,) even if they are "not quite half an inch in diameter."

ANNUALS.—*A Tyro*, (New London.) Sprinkle the surface of the ground around your cypress vines and other climbing plants, which look feeble and yellow, with *guano*, then loosen and stir the surface with a hoe, and afterwards water every evening for a week. They will soon put on a dark-green colour and commence growing luxuriantly. *A Lady Reader*. (New London.) If you sow beds of Double Dwarf Lark-spurs about the middle of August, you will have a much finer bloom than it is possible to get by spring planting.

VEGETABLES.—*W. B.* (Albany.) The *Bassano* beet is altogether superior as a winter variety for the table to any other. This sort grows very rapidly, and will be in full time for winter use if sown now. The seed may be had at THORBURN'S, 15 John-street, New-York. Early Walcheren Broccoli has proved excellent with us, and appears to be hardier and easier of culture than the common sort. *O. Johnson*, (New-York.) We are cultivating the Ispahan (Persian) melon; so far, very successfully in the open air, and will give you the details at the end of the season. *W. C.*, (New-York.) If you give your cabbage ground a good top-dressing of *salt* (say at the rate of 12 bushels to the acre) next spring, before you break it up, you will not be troubled again with the "cut-worm."

APRICOTS.—*A Jerseyman*. The large Early Apricot proves very beautiful, very early and excellent with us. It ripens long before the Moorpark. (See account in previous page.) *Dubois' Early Golden* we have seen in abundance this season, and think even more highly of it than we did last year. It is one of the hardiest and most profitable sorts for market; and though not large, is handsome, and the flavor very good.

ROSES.—*A New Subscriber*. Bourbon roses may be budded on the stems of your prairies at any height you please, and it may be performed at once if the bark will peel readily. Mr. RIVERS is perhaps the largest rose grower in the world, and we have found him accurate in his sorts. Mr. JAMES WILSON of Albany, or probably BUIST of Philadelphia, or BALL of New-York, can supply the articles you mention.

GRAPES.—The shrivelling of your grapes we should ascribe to the great heat of the sun, in the morning, before you admit air to the vinery. You should avoid such inequalities of temperature. The inside border, also, should be kept regularly and thoroughly moistened throughout. *An Old Gardener*. We will be much obliged to you, or any other of our subscribers, for a sight of any distinct varieties of

the Isabella with fruit of superior quality or extra size.

PEARS.—*Querist*, (Baltimore.) The Seckel Pear will bear more manure than any other variety, and demands more to give large and handsome fruit. Vicar of Winkfield is a great and regular bearer, and brings a good price in market, and on the whole may be considered one of the most profitable sorts that can be planted for profit, though only of second quality. *X. Y. Z.*, (Rochester.) We think very highly indeed of Van Mon's Leon le Clerc. Specimens ripened here have been universally large, fair, beautiful and delicious, and neither here nor with you will it be the least affected by "cracking." The tree is thrifty and bears young.

TREES.—*W.*, (Cincinnati.) The Deodar Cedar is hardier and more rapid in its growth than the cedar of Lebanon. The latter probably suffers while young from the heat of the sun with you. Put up a trellis to shade it except from the morning and evening sun.

GRAPES.—*A. J. R.* (New Bedford.) Allowing your grape vines to "trail on the surface of gravelly knolls," would not answer unless the surface is all gravel or rock, for the fruit would be spoiled, and it would be difficult to keep the vines properly pruned to ensure good crops and fruit. You had better train them on upright trellises, or even small poles. It would answer a very good purpose, however, and the grapes would ripen better, if a horizontal trellis or frame were made parallel to the surface, and only 2 or 3 feet above it, upon which to train the vines. The very complete exposure of the foliage by this mode, would improve the quality of the grapes; but it would be a less easy way of cultivating grapes in any quantity, than when the upright trellis is used.

IMPROVEMENT OF FRUITS.—*H.* (Columbus, O.) The common blackberry is capable of improvement. Select the very largest and finest fruit you can find, and plant them immediately in a rather shaded situation. They will vegetate in the spring, and bear, probably, in the succeeding year. Then select, again, the very largest fruit from these seedlings, and sow the seeds of those. In this way you will no doubt be able to double the size and greatly improve the flavor of this fruit, in two or three generations.

POMOLOGICAL CONVENTION.—*E.* (Cincinnati.) The Pomological Convention will meet in New-York the first week in October, and as we learn that it is to be composed entirely of *delegations* from all the leading Horticultural Societies of the country—delegations, we presume, of experienced pomologists and fruit-growers—we look forward to it as a very important meeting. We have not yet received the circular, but will publish it next month. The pomological meeting at Buffalo will also, no doubt, be very interesting.

* * Correspondents who are *subscribers*, will hereafter find replies to any question on subjects within the scope of this journal, in this department, (unless otherwise requested)—and all queries put in a *brief shape*, and sent to us *free of postage*, shall receive attention.—ED.

PENNSYLVANIA HORTICULTURAL SOCIETY.

The stated meeting for July was held on the evening of the 15th. The president in the chair.

The display of fruits was excellent. The grapes were particularly fine, and consisted of large bunches of Black Hamburg and Victoria, White Frontignac and Palestine—varieties from the forcing houses of the president; and White Frontignac and White Chasselas, from the collection at the convent of the Sisters at Andalusia. Of apricots, a number of dishes; one of unusually large size, raised by John White, Burlington, N. J., on a tree growing in an eight feet wide alley, where it receives only three hours sun daily, in common soil, unmanured; it, however, has been watered after sunset with a small quantity of soap-suds. Plums, the Miser, a seedling, and other varieties; and three or four varieties of apples, and several of pears. Also peaches, and Fairchild's nectarines, from the green-house of Mr. Cope. A dish of cultivated blackberries,—a specimen of the first crop of a field of one-fourth of an acre. Of plants, there were interesting collections, and handsome bouquets; and a very fine show of vegetables.

Reports of the Standing Committees.

The Committee on Plants and Flowers felt much pleasure in awarding the following premiums:

CACI.—For the best six plants in pots, to B. Daniels, gardener to C. Cope.

LILIUM LANCEOLATUM.—For the best two in pots, to John Sherwood.

HOT-HOUSE PLANTS.—For the best three in pots, to Ben Daniels; for the second best do., to the same.

PLANTS IN POTS.—For the best collection, to James Bisset, gardener to James Dundas; for the second best do., to Robert Buist; for the third best do., to Ben Daniels. For the best bouquet, for the second best do., for the best bouquet formed of indigenous flowers and for the best basket formed of indigenous flowers, to Robert Kilvington. For the best basket of cut flowers, to James Bisset; and for the second best do., to Ben Daniels.

The Committee on Fruits, report that they have awarded the following premiums, viz:

GRAPES.—Best three bunches of a black variety, Hamburg, to B. Daniels, gardener to C. Cope; for the second best do., Victoria, to the same. For the best of a white variety—White Frontignac, and the second best do.—Chasselas, to Wm Westcott.

APRICOTS.—For the best Moorpark, to John White; for the second best do.—Moorpark, to John Anspach, jr.

PLUMS.—For the best, (a seedling,) to Alexander Parker; for the second best do., to W. Foster, Burlington.

APPLES.—For the best, the Yellow Harvest, to John Perkins; for the second best do., Bough, to G. B. Deacon, Burlington. And your committee cannot pass without notice several varieties of pears, but with one exception unripe, and the quality therefore not ascertainable. Some fine peaches, also, were exhibited, of artificial culture. And your committee noticed a dish of very fine blackberries, of domestic culture, and the first fruits of one-fourth of an acre. The Fairfield Nectarines, and some other fruits, were exhibited, but in an immature state.

The committee also respectfully report that they have awarded a premium of ten dollars for the best seedling strawberry, offered to their notice this year, to Gerhard Schmitz, for a variety raised by him, and named by the committee the *Movamensing*.

The Committee on Fruits reported that they were unable to aid, or practically to devise, a plan to obtain the requisite information on the subject of the amount of small fruits sold in the markets, referred to them at the last meeting.

The Committee on Vegetables report that they have awarded the following, viz:

For the best display by market gardeners, and for the second best do., to Anthony Felten. For the best display by amateurs, to Isaac B. Baxter; for the next best do., to B. Daniels, gardener to C. Cope.

OBJECTS EXHIBITED.—Plants by B. Daniels, gardener to C. Cope. Cacti, hot-house plants, green-house plants, &c.

By Robert Buist, several species of achimenes, phloxes, Fuchsias, lilioms, etc.

By James Bisset, gardener to J. Dundas, a good collection. By John Sherwood, specimens of *lilium lanceolatum*.

BOUQUETS.—By R. Kilvington, James Bisset, Ben. Daniels and others.

FRUITS.—By B. Daniels, gardener to C. Cope, grapes, Black Hamburg, White Frontignac, Victoria and Palestine; peaches and Fairchild's Nectarines.

By W. Westcott, gardener to Institution of the Sisters of the Sacred Heart, White Frontignac, and White Chasselas Grapes.

By John White, Burlington, Moorpark Apricots.

By John Anspach, jr., Sp. Garden, Moorpark Apricots.

By Alex. Parker, apricots and plums, seedlings.

By W. Foster, Burlington, the Miser Plum.

By John Perkins, Moorestown, N. J., apples, Yellow Harvest, Striped Harvest, and White Juneating.

By Geo. B. Deacon, Burlington, Bough Apple.

By Thos. Hancock, Burlington, Red Astrachan Apple.

By Dr. D. James, Byberry, Yellow Harvest Apple.

By John Sherwood, a number of kinds of pears.

By Isaac B. Baxter, pears and plums.

By Benjamin Parker, near Germantown, cultivated blackberries.

VEGETABLES.—By A. Felten, an extensive collection.

By Isaac B. Baxter, a fine collection.

By Ben. Daniels, gardener to C. Cope, some choice specimens.

Reports of Standing Committees at the Intermediate Meeting, held July 3d.

The Committee on Plants and Flowers award the premiums—for the best six carnations, for the second best six do., and for the best American seedling carnation, to Matthew Mills.

The Committee on Fruit award the following premiums, in accordance with the schedule:

For currants—for the best Red, White and Black, to Sam'l Cooper.

For gooseberries—for the best quart, Smith's White, to Isaac B. Baxter.

Raspberries—for the best one quart, Antwerp, to Samuel Cooper; for the second best, native, to Isaac B. Baxter.

The committee recommend—for a fine dish of Yellow Harvest Apples, by John Perkins; also for Muscat Robin Pears, by Isaac B. Baxter—a special premium of one dollar to each.

They were highly gratified by the exhibition of a seedling cherry, by James Gillin, with red flesh, combining the flavor of the Mavduke and Morello, resembling the first named variety in shape and colour, but scarcely equal to it in size.

They also noticed a Morello of remarkable size, called the English, shown by John Perkins; and peaches from the forcing-house of the president, attracted much attention.

The following seedling raspberries, from Dr. Brinckle, elicited great admiration, viz: the Cushing, the Orange, the Col. Wilder, No 19 F. and No. 19 M.; and the committee believe that some, at least, of these varieties, when in general cultivation, will prove most valuable additions to our list of dessert fruits.

The Committee on Vegetables award the premiums for Tomatoes—for the best, a half a peck, to Samuel Cooper; for the second best do., to Benj. Gulliss.

OBJECTS SHOWN.—Carnations, by Math. Mills, Frankford.

FRUIT.—By Sam'l Cooper, Red, Black and White Currants, Smith's White and Rough Red Gooseberries, and Antwerp Raspberries.

By Isaac B. Baxter, pears, Muscat Robin; Whitesmith, and long green gooseberries, and native raspberries.

By John Perkins, Yellow Harvest Apples, and English Morello Cherries.

By Anthony Felten, Red and Black Currants, and Antwerp Gooseberries.

By James Gillin, seedling cherries.

By C. Cope, peaches.

By Dr. W. D. Brinckle, seedling raspberries.

VEGETABLES.—Tomatoes, by Sam'l Cooper, B. Gulliss and W. Johns. Also a specimen of Hutchinson Wheat, by John R. Brinckle. Adjourned.

THO. P. JAMES,
Recording Sec'y.

ABERDEEN BEE-HIVE STRAWBERRY.

JAMES M. THORBURN & CO.,

No. 15, JOHN-STREET, NEW-YORK,

WILL have ready for delivery from their Garden, (Astoria, L. I.,) 1st of August, 1848, a few hundred of this celebrated new Strawberry, which has been out over a year in Scotland and England; no contradiction of its great bearing and excellent qualities having yet appeared. It is thus set forth in an advertisement, by the grower, in the London Gardeners' and Farmers' Journal, May 20, 1848:

"The Aberdeen Bee-hive,—so extensively circulated and highly appreciated the two last seasons throughout Great Britain and France, as being superior to all others in cultivation; the earliest, highest flavored, and the most prolific,—one plant producing a number equal to twenty of any other sort; each plant throws from fifty to an hundred and twenty clusters, forming a top resembling a bee-hive. So regularly do they ripen, that they may be gathered in bunches of from twelve to thirty bright scarlet berries, of a round shape, garnished with a green husk folding toward the stalk. The extraordinary appearance of the fruit is more than can be comprehended, but by those who have seen them on the ground or table, where they have been greatly admired. They make a transparent preserve; the interior being the same as the exterior. Upwards of five hundred specimens of the fruit were sent out last season, which is sufficient to establish its merits."

The stock from which ours were raised was imported when it was new, and cost £2, 10s. sterling for one dozen plants. Our experience of its merits are no further, than three plants fruited in the greenhouse last winter, were weak by being recently imported and *forced* to induce runners; with these disadvantages, they were up to expectation,—bearing masses of beautiful high coloured fruit, as described above by Mr. Mathewson, of Aberdeen, from whose nursery we received them *direct* by steam in December last.

The subscribers will not involve themselves in any *guarantee*, as to their being as described by the Scotch grower; nor think the criticisms of editors of horticultural periodicals, either for or against their merits, of any moment, as they have never yet been fairly tested in a bed out of doors. Their fruiting in pots in a green-house, and when just imported and driven forward, gives no just idea of their merit. We warrant ours to be the genuine Bee-hive, direct from Aberdeen; and as it is a northern county of Scotland, will no doubt prove *hardy*, which is of importance,—many of the finest European sorts not enduring our climate without protection, as British Queen and others, which are superior in England. Price \$3 per dozen, strongly rooted in small pots, packing included.

Also, the following first rate sorts:—Hovey's Seedling, \$1.50 per hundred—\$10 per thousand. Boston Pine, \$2 per hundred. Buist's Prize, \$3. Princesse Alice Maude, extra fine sort, \$2. Myatt's Eliza, extra fine and famous bearer, \$2. Scotch Pine or Crimson Cone, \$1.50. Iowa, \$1.50. North's Victory, \$1.50.

August 1, 1848—2t.

TULIPS.

THE subscriber has for sale the largest collection of choice named Tulips on this continent. His specimen beds contain upwards of 10,000 bulbs of the finest named kinds, which he now offers in large or small assortments, at much lower rates than similar kinds can be obtained in this country, or in Europe.

Fine assortments, selected by the subscriber, will be furnished at the following rates:

100 (or more) choicest named kinds,	2 of each kind,	\$15 per 100 roots.
100 " " "	1 " "	18 "
50 " " "	1 " "	10 "
100 " " "	mixed,	10 "

Best named kind, 1 of each, \$3 per dozen—mixed kinds, \$1 per dozen.

Where a small selection is made from the Catalogue, they will be supplied at from 25 to 50 cents each, according to quality; if a dozen or more is selected, a discount of 20 per cent will be made. Catalogues supplied to all post-paid applicants. Orders will be promptly attended to, and the roots carefully packed and forwarded according to directions. Directions for planting, &c., given if required.

JAMES DOUGALL,

Rosebank, near Amherstburgh, Canada West.

August 1, 1848—2t*.

WILLIAM R. PRINCE & CO.,

Sole Proprietors of the Linnæan Gardens and Nurseries, Flushing,

WILL transmit their NEW STRAWBERRY CATALOGUE, comprising every estimable variety, with descriptions, culture and prices, just published, to every post-paid applicant.

The following form a part only. The prices per 1,000 are greatly reduced. H. denotes the Hermaphrodite, and P. the Pistillate varieties. The varieties thus * designated are not in possession of any other nursery in this town or elsewhere. Strangers will enclose cash with their orders.

Price per doz. pr 100.

Price per doz. pr 100.

Scarlet and Pine Strawberries.

Abyssinian Prince, P.	\$2 00	\$8 00
Aberdeen Beehive, H.	2 00	8 00
* American Scarlet, P.	0 50	2 00
* " Prolific, H.	0 50	2 00
* Bishop's Globe, P.	0 50	2 00
* " Seedling, true, P.	0 50	2 00
" Orange, true,		
Black Prince, P.	0 50	2 00
Boston Pine, H.	0 50	2 00
* Brilliant, H.	2 00	8 00
Burr's Seedling, H.	0 37	2 00
" Columbus, P.	0 60	4 00
" Late Prolific, P.	1 25	8 00
" Mammoth, H.	1 00	6 00
" New Pine, P.	1 25	8 00
" Profusion, P.	1 00	5 00
" Rival Hudson, P.	0 60	4 00
" Scarlet Melting, P.	1 25	6 00
" Sciota, P.	1 25	8 00
* Charlotte, P.	3 00	10 00
* Chili, H.	3 00	10 00
* Cluster Hudson, P.	1 00	5 00
* Cornucopia, P.	2 00	10 00
Crimson Cone, P.	0 75	3 00
* " Pine, H. & P.	1 50	6 00
Cushing, H.	0 50	2 00
Eberlein, H.	1 50	6 00
* Eustatia, P.	2 00	10 00
* Globose Swainstone, H.	2 00	10 00
Hovey's Seedling, P.	0 37	1 50
Hudson, H. & P.	0 37	1 50
* Illinois, P.	0 50	2 00
Jenney's Seedling, P.	0 50	2 00
* Ladies' Finger, H.	2 00	10 00
Large Early Scarlet, H.	0 25	1 00
* Le Baron, H.	2 00	8 00
Lizzie Randolph, P.	2 00	10 00
* Magnate, P.	3 00	15 00
* Magnifique, P.	3 00	15 00

Methven or Victoria, P.	\$0 25	\$1 50
* Monstrous Swainstone, H.	2 00	10 00
* Primata, H.	3 00	10 00
* Primordial, P.	2 00	10 00
* Profuse Scarlet, P.	3 00	5 00
* Prolific Hudson, P.	1 00	8 00
* " Swainstone, H.	2 00	8 00
* Refulgent, P.	2 00	8 00
* Round White Carolina, H.	2 00	8 00
* Serena, H.	2 50	10 00
* Theresa, H.	2 00	8 00
* Tivoli Scarlet,	2 50	10 00
* Unique Scarlet, H.	1 00	5 00

Prairie Strawberries.

* Camak's Scarlet, H.	0 50	2 00
Iowa, H.	0 50	2 00
Prairie Cluster, P.	0 50	2 00

Pistillate Keen, of Ohio.

Taylor's Seedling, P.	0 50	2 00
Unique Prairie, P.	0 50	2 00

Necked Pine, of Ohio.

Willey, P.	0 50	2 00
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Hautbois Strawberries.

* Green, H.	0 50	2 50
* Large flat Hautbois, H.	0 50	2 50
Prolific Hautbois, H.	0 37	1 50

Alpine and Wood Strawberries.

* Besancon Alpine, H.	0 75	3 00
Redwood, (English) H.	0 25	1 00
Whitewood, " H.	0 25	1 00
Red Alpine, with runners, H.	0 25	1 00
White " " H.	0 50	2 00
Red Bush Alpine, no runners, H.	0 50	2 00
White Bush " " H.	0 50	2 00

Montevideo Pine.

* 13 splendid varieties, each \$5 per dozen.

Fruit Tree Scions for Budding.

WM. R. PRINCE & CO., Flushing, will supply these at the same price as advertised in the Cultivator and Horticulturist of January last.

August 1, 1848.

WANTED, a situation as FOREMAN or PROPAGATOR in a nursery, or GARDEN, by an Englishman aged 36, whose whole life has been devoted to acquiring a scientific and practical knowledge of the business, and is conversant with Descriptive and Structural Botany. He has filled situations in each of the above capacities, and has been a very successful competitor at some of the principal exhibitions in England, as the numerous premiums in his possession testify. As he only wishes the reward of merit, wages would be a secondary consideration. The most undeniable references of ability and moral conduct.

Any communication addressed to W. C., care of Mr. J. Shaw, Florist, Eleventh street, Sixth Avenue, New-York city, will be promptly attended to.

Aug. 1—1t



Horticulturist,

AND

JOURNAL OF RURAL ART AND RURAL TASTE.

VOL. III.

SEPTEMBER, 1848.

No. 3.

ONE OF THE GREATEST STUMBLING BLOCKS, in the way of the orchardist and fruit grower, in the United States, is the almost endless catalogue of names of indifferent fruits, now in general cultivation.

Where there is one curious amateur, who wishes to make a museum of his grounds, to exhibit or to test every procurable variety of fruit, there are thousands who are anxious to plant only a few of the best and most valuable sorts. Where can they obtain information touching this selection? The nurseryman puts into their hands his catalogue, in which there are probably 200 kinds of pears recommended; mostly "delicious," "excellent," "first-rate;" very few, indeed, being marked "second rate," "poor," or "*worthless*." Yet, almost every honest and experienced fruit grower, who has tested 200 sorts of pears, will tell you frankly that he finds it difficult to name over 20 or 30 sorts really worthy of cultivation!

Horticultural societies are instituted mainly to advance the taste for the intelligent culture of fruits and flowers. Yet, we regret to say, year after year, our leading horticultural societies permit numberless varieties of fruit to be exhibited at their annual shows, which are known by their

fruit committees, to be quite unworthy of cultivation. Indeed, the public generally, which goes to admire and learn, have, at these exhibitions, no means of judging of the comparative value attached by the society to any one of the varieties exhibited. Not only is the public debarred, (for various good reasons,) from making actual trial of samples for themselves, but that part of the society which does possess this kind of knowledge, sits in secret session in its committee room, and instead of affixing (as we conceive they ought to do,) labels, No. 1, No. 2, No. 3, &c., to designate the estimation in which the society holds all known and tried sorts, they remain silent, and allow the novice, captivated by exterior charms, to embark in the pomological lottery, where blanks are ten times as numerous as prizes; instead of hanging out a friendly light over the shoals and breakers, which they know by heart, they quietly allow the inexperienced navigator to strand himself on the same bars; and only when he is high and dry, does some member cry out—"Oh, if you had come to me, privately, I could have told you that there are only twenty pears really worth growing!"

It is quite natural and proper, that nurserymen should collect and propagate for sale

every variety of fruit which is spoken of, either at home or abroad, as possessing superior qualities; for that is their legitimate business. And so long as people continue to estimate nurseries (as we suppose many persons do,) by the size of their catalogues, there will be no lack of long lists. Nurserymen will retain old sorts, which they admit to be of little or no value, because other nurserymen put them into their catalogues, and because buyers order such sorts, which they do, from real ignorance of their demerits.

But if any one, who has at heart the benefit of the whole community, will consider for a moment, the loss of time, money, and satisfaction which this state of things forces upon the country at large, he will quickly see the great importance, if the thing is possible, of endeavoring to winnow the wheat from the chaff; in a few words, of putting the public in possession of the experience of those who really know what are the good and valuable sorts, and what those unworthy of cultivation.

A man ignorant of fruit culture wishes to plant an orchard. He goes to a nursery and takes, of the varieties in general cultivation, the usual proportion of the sorts grown by the nurseryman. After ten or fifteen years, his orchard comes into bearing, and he finds that not more than half the varieties are precisely those which he ought to have planted; they are either of inferior quality, indifferent bearers, or are quite unprofitable cumberers of the ground. Here are ten or fifteen years lost; to say nothing of the difference in value between the indifferent and the superior fruit, and the vexation of ascertaining that a little knowledge at the outset, would have secured perfectly satisfactory results, first rate fruit, and profitable crops.

It may be said that it is the business of

pomological writers to make known the merits of varieties, and to guide public opinion in this respect. This is quite true, and, to a certain extent, they do effect this object. But pomological writers are not omniscient; and there are many who distrust the capacity of a pomologist, or a society, in one section of the country, for pronouncing upon the value of certain fruits in another section. So, after all, beginners are largely at the mercy of catalogues, and orchards abounding with poor fruit are planted, where orchards of the best fruit only ought to grow.

Our attention is drawn to this subject, at the present moment, by an examination of the circular for the *national pomological convention*, to be held in New-York this autumn, of which a copy will be found in a subsequent page. This convention will, no doubt, be attended by persons from most of the northern and western states at least; and we observe one distinct feature in its plan which appears to us to be one of great importance. It is to be composed not merely of fruit growers, nurserymen, pomologists, and amateurs, of experience, but of such persons of this class as may be selected and sent as *delegates* to the convention, from the different horticultural societies in various parts of the country.

Now, if the different horticultural societies would weigh well the importance of this subject, and each send a delegation composed of the ablest fruit growers and fruit judges in their districts, it appears to us that a convention would be formed which would embody the best part of the pomological information in the country; that such a convention would be able, this season, to make at least a commencement towards clearing away some of the rubbish of pomology, that has actually and by general consent been ascertained to be rubbish; and that, if thought advisable, its meetings

could be adjourned from year to year, while its labors were found useful to the country.

Every horticultural society embraces within its numbers, at least two or three men, whose experience and knowledge of fruit is far in advance of that of the country about them. They are not always those most desirous of attending conventions, nor are they those who would perhaps offer themselves to the society as delegates. But they are those whose services would really be most valuable to the country at large, and who should be prevailed upon to go to the convention. Such men are Mr. THOMAS, of Macedon, Dr. KIRTLAND, of Cleveland, Mr. WALKER, of Boston, etc., who, even if they were not members of the horticultural societies in their neighborhood, should be solicited by such horticultural society to represent them in this convention, because their local and general experience in the culture of fruits is such as renders them the proper representatives of the pomological knowledge of their sections of the Union.

The action of an annual convention of this kind, composed of the ablest fruit growers, nurserymen and pomologists of the Union, would, we think, be of incalculable benefit to horticulture, and to the country generally. Nurserymen would be gainers; because, by publishing lists of sorts which a convention, composed of the best judges from all parts of the country, considered unworthy of cultivation, the increased labor, perplexity, and cost of propagating, accurately, long catalogues of varieties would be avoided; fruit growers would be gainers, because the collective experience of the whole country, when thus brought unanimously to the approval or disapproval of any variety, would leave no doubt on their mind as to its value; and,

the country at large would be gainers, because fruit tree planting would soon cease to be done in the dark, as to the merit of tested varieties at least, and the present abundance of inferior fruit in our markets, would give place to an equal or greater abundance of fine fruit.

If we have made this as clear to the minds of the active members of the various horticultural societies as it is to us, we shall hope to see a horticultural convention assembled in New-York in October, such as has not yet been brought together anywhere in America,—such a convention as the *congress of vine-dressers* in France,—a convention that will fairly represent the highest pomological intelligence of all parts of the country—the soundest practical judgment of all the horticultural societies (now some thirty in number,) in the Union.

Some of our correspondents have expressed their regret that the time of this convention was not fixed upon an earlier day in the autumn, when fruits are more abundant. This does not appear to us important, at least for a first meeting. It seems to us that the first and most important duty of such a convention, is to compare notes and revise the past. This is what none of our horticultural societies can possibly do, since their materials are all local; while they can and do ascertain, in part, the value of all new varieties that are exhibited from time to time at their shows.

The second greatest benefit that we can hope from such a pomological convention, is the comparison of fruits, and consequent identification of numerous synonymous varieties, known under different names in various parts of the country. This can only be done by a series of meetings, held at *different periods* in the year, and therefore must be a matter mainly for further

arrangement, after the convention is once successfully organized.

The following remarks on this subject are from the pen of Mr. BEECHER. They were written for the meridian of Indiana; but are so entirely apposite to the subject, that our readers will be glad to see them published here:

"Already the varieties of hardy fruits have become so numerous, that not only can they not all be cultivated, but the mere list of names is too bulky to be printed. Downing's book gives a list of 181 apples. The London Horticultural Society's Catalogue, expurgated at that, gives 900 kinds of apples, and 1500 have been tested in the society's gardens. Manning's experimental grounds and nursery at the time of his death, contained 1000 named varieties of the pear! Swollen as is the list, there are scores annually added; many, under the advice of scientific bodies; many have popular approbation; many, from the partialities of some parental nurseryman; and many come in, as evil came into this world, no one can tell how.

"It has become necessary, therefore, to exclude many from the catalogue, and especially necessary that none should enter without the very best passport. In the main, one set of tests will serve, both for receiving and expurgating; for no matter how long a fruit has been on the list, it should be ejected if, being out, its qualities would not gain it a fresh admission. There are no hereditary rights, or rights of occupancy, in pomological lists.

"Titles, rank, antiquity, pedigree and other merciful means of compensating a want of personal merit, may do for *men*, but not for *apples*. A very glorious pomological reformation broke out in the London Horticultural Society's gardens at Chiswick, and that Luther of the orchard, Mr. Thompson, has abolished an astonishing number of sinecures, and reformed, if not worthless rotten boroughs, very worthless apples and pears. The society's first catalogue, issued in 1826. Its third catalogue was published in December of 1842. The experience of the intervening sixteen years, led to the total rejection from their list, on the ground

of inferiority, or as synonyms, of 600 varieties of apples; 139 of cherries; 200 of gooseberries; 82 of grapes; 80 of strawberries; 150 of peaches; 200 of pears; and 150 of plums. Only *twenty-eight* peaches are allowed to stand; and only *twenty-six* strawberries out of the hundreds that were proved. We have no similar society in the United States, whose authority would be generally acknowledged. Our only resource is the diffusion of the very best fruits, that every neighborhood may have a standard of comparison by the reduction of experience to the form of rules. Although it is difficult to lay down general rules on this subject, there are three which may be mentioned.

"1. *No fruit should be admitted to the list, and none retained upon it, which is decidedly poor.*—One would suppose this truism to be superfluous as a rule. But it is only necessary to go out into seedling orchards in any neighborhood in this vicinity, to find small, tough, and flavorless apples, which hold their place along side of orchards filled with choice grafted fruit.

"2. *No seedling fruit should be added to the list, which is in no respect better than those, of the same period of ripening, already cultivated.*—It is not enough that an apple is nearly or quite as good as another favorite apple. It must be *as good* in flavor, and better in some of its habits.

"3. *In testing the merits of fruit, an estimate should be the result of a consideration of all the habits, jointly, of the tree and of the fruit.*—It is in the application of this rule that great experience, and judgment are required. This will be plain, if one considers how many essential particulars enter into a first-rate fruit besides mere flavor.

"Of two fruits equal in flavor, one may surpass the other in tenderness of flesh, in juiciness, in delicacy of skin, and in size. It is rare that any single fruit combines all these excellencies, and therefore it is, that we retain several varieties, among which such properties are distributed.

"There are many fruits which, having good substance and flavor, derive their value from some single peculiarity. Thus, a fruit may be no better than many others,

but the tree, blooming very late in spring, is seldom overtaken by prowling and irregular frosts. Some of our best fruits, have stingy bearing trees, or trees of very tender and delicate habit; and we are obliged to tolerate more hardy and prolific trees with fruit somewhat inferior.

"A few fruits are retained on the list because they have the singular property of being uninjured by frosts, and others because, though not remarkable for flavor, they are endless keepers, of both which properties the Rawle's Jennetan of this region is an example.

"In fruits designed for market, beauty and abundance must be allowed to supercede mere excellence of flavor. Some very rich fruits are borne in such a parsimonious way that none but amateurs can afford tree room.

"Nor are we to overlook nursery qualifications; for, of two fruits equally good, preference should be given to that which will work the kindest in the nursery. Some will bear grafting on the root, some will not; some take well by budding and grow off promptly and with force; others are dull and sluggish, and often reluctant to form the new partnership. While then it will always be to the nurseryman's interest to work such kinds as he can sell the most of, he has a right, in so far as he directs the public judgment of his neighbor-

hood, to give a preference, among equal fruits, to such as work the surest, and strongest. It is as much the interest of the purchaser and the public to have the freest growing sorts, as it is the nurseryman's interest. Thus, if another Seckel pear could be found growing on the tree of William's *Bon Chretien*, it ought to supplant the old Seckel tree; which, in spite of its incomparable fruit, is a vexatious thing to manage; and, as often in the case of other and fairer fruit, makes one wonder how such amiable and beautiful daughters ever had such a surly and crusty old father.

"A pomological censor must also have regard to varieties of taste among men, and to commercial qualities of fruit; and to its adaptation to soil and climate.

"Nor are the humbler tests of cooking to be overlooked. Some fruits are good eaters and poor cookers; some cook well but are villainous to the taste when raw; some will stew to a fine flavor and sweetness *without sugar*; and some have remarkable jelly properties. But after the largest allowance is made for taste, hardiness, keeping, prolific bearing, colour, size, texture, season, adaptation to soils, &c. &c., there will be found, we think, a large number of tenants in our nurserymen's catalogues, upon whom should be instantly served a writ of ejectment."

THE CULTIVATION OF GRAPES IN POTS.

BY JOHN SPENCER, BOWWOOD, ENGLAND.

[THREE of our correspondents, within the last month, having requested information on the subject, we reprint, from the *Gardeners' Chronicle*, the following very valuable article, by a practical gardener in England, which we recommend to the attention of those growing foreign grapes under glass. ED.]

The first impulse given to fruiting vines in pots was by a paper in the "Horticultural Register for 1831," by Mr. G. Stafford,

then gardener at Willersly Castle, in Derbyshire, and which at the time elicited much surprise. Through him I became practically acquainted with the system he followed; and since then having been more or less engaged annually in preparing and fruiting a considerable number of vines in pots, I can safely bear witness to the successful results that will follow the practice detailed below.

After fixing on the kinds of vines you intend growing, the first thing to be done is to procure eyes (or buds) of the required

kinds, from some known good bearing vines, taking care to have the wood perfectly hard and ripe, with the eyes prominent and round. If the vines are intended to be fruited the next season, the eyes should be potted in 32-pots, placing them one inch below the surface, and using soil of a light turfy nature, or if stiff, adding a portion of half decayed leaves; only one eye must be planted in each pot. This should be done early in February, and when finished the pots containing the eyes may be plunged in any pit or frame that may be at work, where a bottom-heat can be maintained of 90°, or thereabouts. They may remain there until growth has commenced, when sun-light being indispensable to the welfare of the young plants, they should be placed (if they were not previously,) as near the glass as possible, sinking the pots as the plants reach the glass, but still keeping a steady bottom-heat, and supplying them with air every day if possible. It is supposed that the heat of the frame or pit varies from 60° to 90° in sunshine. When the pots are filled with roots, which will be some time in April, they may be transferred at once into their fruiting pots, which should be 2s or 4s, according to the strength you wish your vines to attain; bearing in mind that those in the smaller size will ripen their wood earlier, and consequently be available for forcing at an earlier period than the others. This operation will bring us to a consideration of the description of soil or compost most suitable for the vine. When growing naturally out of doors the vine will flourish in a variety of different soils and composts; but when its roots are confined in so small a space as a pot, we must place within the action of its roots that kind of soil from which it can most readily assimilate the elements which constitute its food. After trying nearly all the different composts recommended by the numerous authors on the vine, I am convinced that the more simple the constituents of the soil are for it, or any other kind of pot-plant, the more successful will be the results. The compost I use is two-thirds turfy loam, from a down having a chalky bottom, and one-third decomposed night-soil. Should the loam be strong, I use the same proportion of half

rotten horse-droppings. The turves in the loam should only be half decayed, and it should be used as rough as possible.

After potting, the plants should be placed in some house or pit where a temperature from 60° to 80°, or 85°, is maintained; they should also be so arranged that the shoots as they advance can be trained immediately under the glass, and be exposed as much as possible to the light. The front kerbs and back shelves of pine-pits are suitable places, and the partial shade that the vines afford, benefit the pines during three or four of the summer months. Where there is only a vinery they may be trained between the permanent vines, or in any other place where the cultivator can make room for them. As the shoots advance train them carefully, and stop the laterals as they appear. When first potted the plants will want but little water, but it must be gradually increased as the pots become filled with roots; they will then require it regularly during their growth, and manure water may occasionally be given, although the quantity they demand the first season is small in comparison to what they require afterwards. The most suitable length of cane for pots is from four to six feet, but if from any peculiarity in the house, in which they are to be fruited, a longer length may be required, they should be left accordingly, as the vine will grow strong enough for fruiting, 8, or even 10 feet long. After it has grown a foot more than the length required the next season, it should be stopped; three or four of the upper laterals, however, may be allowed to grow at a few joints, to prevent the topmost eyes breaking. Manure water may now be applied to cause the buds to swell, and care must be taken to preserve the principal leaves, as they are now performing a most important part in regard to the crop next season. When the wood appears to be turning brown (or ripening,) water should only be applied to prevent the vines flagging, the laterals should be taken off, and every means should be employed to ripen the wood perfectly. Indeed, if it is not convenient to allow a large admission of air when they are growing, it would benefit them much by removing them to a cool house, where they would have the be-

nefit of more air and a lower temperature at night. By the beginning of September, if the former directions have been followed, the vines will be ripe enough to place out of door. The north side of a wall is the best place, and the pots should be laid on their sides, and every means taken to throw the plants into a state of rest; the cultivator will thus find himself in possession of vines which for strength and vigorous habits may justly be mistaken for older plants.

It will be seen, then, that the principles acted on above are, selecting properly matured wood for cuttings—inserting only one eye in each pot to prevent any check to the plant in re-potting—placing them at once in the pot in which they are to fruit—exposing them during their growth to the greatest possible amount of light you can give them, taking especial care to have the wood perfectly ripe, and inducing an early state of repose. But if the above mode of obtaining fruiting vines for one year, should be thought too troublesome, from the plants requiring bottom-heat during their first stage, the eyes may be planted singly, as before, in 48-pots, and set in any house or pit where there is a little heat; they will be longer, however, by this method in developing their roots, and may not want shifting into larger pots before May or June. When the plants may be shifted into 24s, in which they may remain through the season, in any house or pit in which room can be found for them, paying attention to watering, tying up, &c. They may be stopped when 2 or 3 feet high, and when the wood is fully ripened, removed out of the house and plunged in any material out of doors that is a non-conductor of heat. In February or March, cut these plants down to two or three eyes, shake them entirely out of their pots, and place them in similar sized pots to fruit in as the former ones, taking care to spread their roots (in potting) regularly through the soil, and when growth commences, each spongelet may be in immediate contact with food; this is a much better practice than placing them in a pot without disturbing the ball, as is often done. The same routine of management may be followed with these through the summer, as recommended for the others. They will bear a larger amount of organizable matter, and

vine possesses by this mode of treatment, they will generally be found stronger than those raised the same year, and they possess the advantage of ripening their wood earlier in the summer. It will depend on the means the cultivator has at his disposal which plan he follows.

The next consideration is the time when you wish your grapes to ripen; this being ascertained, it is easily known when forcing ought to commence. It may be stated that vines under the above mentioned treatment will be ready for forcing early in November, and consequently will ripen their crop by the end of March. As the principal use of vines in pots here are kept to occupy the houses (where vines are planted on the outside) during the period that they are inactive, say from November to May, those in pots are generally forwarded in their first stage in any pit or house whose temperature may happen to suit them, and, finally, when the wood of the permanent vines is sufficiently ripened to allow of their being placed outside, the pots are taken in and arranged in their places on shelves put up for the purpose; by these means the houses are of far more use than if they remained empty nearly half the year. However, the precise mode in which the vines are to be fruited depends on the kind of houses the cultivator has at his command; a flued pit answers well; but the best description of houses is that which admits the rays of the sun to pass through it in the winter at as near right angles as can be. Such a house, admitting considerably more light during the winter months, is much more suitable for such a plant as the vine than low flat houses. Whatever the house is, if not perfectly ready for the vines when you wish to begin forcing, get them placed in a dung frame where you can give them a moist heat of 55° , this will cause their buds to swell regularly, and prepare them for their removal to the fruiting-house, when ready, without losing time. Previous to losing their leaves in the autumn, they may, if thought advisable, be disbudded on Roberts' system, leaving a few more buds than you want bunches; but one objection to this system is, that if by any accident through the winter the bud should get injured, it leaves a blank which,

had the next buds remained, might easily have been supplied.

The number of bunches that may be left on each vine will depend on the soil, size of the pot, &c. When the vines are strong, and No. 2 pots are used, I usually leave six or seven bunches on the Hamburgh, the same on the Sweetwater, and one or two more on the Muscadine. If the vines are not so strong, four or five bunches on the Hamburgh will be sufficient. It is much better to have rather fewer bunches and the berries fine and well coloured, than ill-coloured puny bunches, which always is the case when too many are left on the vine. The vines from being placed in the house, presuming their buds to be swelled, must have their temperature raised from 55° fire-heat to 65° when in bloom, and it will be better if this heat by night is never exceeded; of course, on all days when there is no likelihood of sun-heat, the heat of the house should be raised 5° or 10° by artificial means. Air should be admitted by some means or other *every day* early; this is of consequence, or the leaves are apt to get damp, and their texture being so extremely thin, when the hot sun and drying winds of March act on the foliage, they often burn and shrivel, and consequently are unable to swell off the fruit or give it colour. During all the time the vines are in a fruiting state, manure water in some shape or other must be frequently given. Dung water is made of various ingredients, but in whatever way it is made, it ought to ferment before using and should be applied in a pure state, and at a temperature equal, at least, to that of the house. The draining from farm-yards is always good and safe. I use manure water, made by pouring nearly boiling water on equal parts of sheep or deer dung and fresh horse-droppings; this is fined by a lump of fresh lime, is drawn off clear, and when used is diluted with equal parts of rain water. A very weak solution of guano is beneficial, but great caution is required in using it. It is astonishing during the period of active growth, what an immense quantity of dung water vines will take. I have frequently watered them twice a day with it, and this I prefer to placing bottom-pans or feeders under the pots, as is often done. If the

dung water is properly cleared and diluted, it may be given twice for fresh water once; when the grapes are fully swelled, and beginning to colour, water must be more sparingly applied, using clean water only. The flavor of grapes is often spoiled by being over-watered when ripening their fruit, by the proper proportion of carbon and water, which constitutes the saccharine matter in grapes, being destroyed and water formed in excess.

When the fruit is ripe, if the house is wanted for other purposes, the plants may be removed to any dry house or room, where the grapes will keep until wanted.

The varieties I have found best for early forcing are, the Hamburgh, Dutch Sweetwater, and Muscadine. The small-berried varieties, as the Esperione and others, are hardly worth growing, compared with the above. Muscats, and all the delicate sorts, as the Frontignan, answer admirably later in the season, and thus the amateur and those who possess but a small extent of glass may cultivate all the varieties of grapes procurable in British nurseries, at but a trifling additional expense.

Although I have given directions how to render fruitful vines in one season, yet, when a stock is once acquired they may be kept for years in a fruitful state, by resting them at alternate seasons. Thus those plants which have fruited in spring may be turned out of their pots into a border, where they will require no farther trouble until the following spring, when they may be taken up, their roots reduced in some degree, and placed in pots again, planting them deeper than they previously were; they may then have the same management as young plants, and will make very strong canes in the course of the summer. I have vines in pots now in fruit that have borne three or four previous crops. When the cultivator prefers boxes to pots, they may be used, from 14 to 16 inches square, which will be quite large enough; they can be packed on shelves more closely together than pots, and are more handy to move about.

By the above process grapes may be procured by the end of March and April, without interfering with those planted outside, and I would particularly recommend its

adoption by amateurs possessing small establishments, as affording them a means of prolonging their grape season; besides being productive of gratification and pleasure. It is to this class of gentlemen in particular that I wish the foregoing remarks to be addressed. Although it would be a considerable addition to small places, yet in the large establishments at Tedworth, under

Mr. Sanders, and at Tottenham Park, (Mr. Burns) it is an essential feature in their management, and is followed with the most complete success. I imagine the credit of growing plants in one season and fruiting them the next belongs to Mr. Tillans, of Alnwick Castle, who adopted that practice at Woodchester Park, when gardener to the late Lord Ducie.

INTERESTING EXPERIMENT IN VINEYARD CULTIVATION.

BY H. W. S. CLEVELAND, BURLINGTON, N. J.

[THE following account of an experiment in vineyard culture has interested us so much, that, if we felt certain that no other good had resulted from the publication of this journal, than the dissemination of facts of this kind, we should consider our labors in conducting it amply rewarded. Mr. CLEVELAND is one of the most intelligent and reliable horticulturists in New-Jersey. His experiment, and those of "A Jerseyman," and "A Maryland Subscriber," which have already appeared in our columns, we think go very far to establish the fact, that the cultivation of certain kinds of fruit trees, more or less difficult in this climate, such as the pear, the gooseberry, and the grape, is wonderfully facilitated by keeping the surface of the soil covered from the too powerful influence of the atmosphere; and we look upon it, if well established, as a fact worth thousands to fruit growers all over the country.

The *rose-bug*, that pest in almost all very light soils, has hitherto nearly baffled the skill of the cultivator. We recommend, therefore, a repetition of Mr. CLEVELAND's experiment, next season, in various parts of the country where this insect abounds. ED.]

A. J. DOWNING, ESQ.—DEAR SIR: I have been trying an experiment during the pre-

sent season, which has proved successful; and, as the theory seems to be partly confirmed by communications from two or three different sources in the back numbers of the *Horticulturist*, I am happy to add my testimony to theirs.

My vineyard consists of between two and three acres; and it has heretofore been my practice to plough between the rows three or four times during the season, thus burying the weeds and making them act as manure. This course has always been liable to objections on several accounts; and last winter, I conceived the plan of covering the ground with some substance which should prevent the growth of weeds, supercede the necessity of ploughing, and afford the shelter to the roots of the vines which in the forest is given by the mat of leaves with which the earth is covered, and from which, in fact, I first took the hint. At first, I began collecting shavings from the carpenters' shops in our village, and having exhausted that source, I raked the drift stuff from the river bank,—consisting of reed grass, leaves and chips, for three miles; and collected enough to cover about a third of my vineyard, three inches deep. The health and vigor of the vines in the part thus treated is so far superior to the

rest, that no one could fail to be struck with it at first sight, and the fruit is much more free from defects of all kinds.

But, one effect has followed, which I did not hope for. My vines are every year so infested with rose-bugs, that during the time they last I have had to employ half a dozen boys almost constantly in destroying them; each boy being provided with a tin cup, with a little spirits of turpentine, into which the bugs are knocked from the vines, which kills them instantly. The boys amuse themselves by making a heap of all they catch; and the pile of the present season would have filled a half bushel measure; but, to our surprise, we found so few bugs, in that part of the vineyard where the ground was covered, that it was often unnecessary to hunt there for them—even when they were so numerous in the rest of the vineyard as to require inspection daily, and sometimes twice a day. The thick mat with which the ground was covered, had evidently either prevented the transformation from the worm to the bug, or else the young bug was too weak to work its way up through it; and the few we found there had been blown or flew

from the other side of the vineyard. Whether this object might not have been more thoroughly effected, had the stuff with which the ground was covered been well salted, or laid in a heap with alternate layers of ashes for sometime before using, or whether the same remedy might not be successfully applied for the destruction of curculios, and such other insects as breed in the ground, are questions which I intend to test by experiments, in which I hope other horticulturists will join, and make a report of their experience. The experience of "A Jerseyman," and of "B. H. T.," with a similar experiment on gooseberries, though they attribute much of their success to the salt of the hay and seaweed, and of "A Maryland Subscriber," in covering the roots of pear trees with straw, all go to prove the utility of covering the ground with some kind of vegetable matter, which certainly is in conformity with the dictates of nature; and I cannot help thinking the effect would be good, in extensive vineyards or orchards, of covering the whole ground in the manner described. Very truly yours. H. W. S. CLEVELAND.

Orlando, Burlington, N. J., Aug. 3, 1848.

EXPERIMENTS IN HORTICULTURE—NO. 1.

BY B., POUGHKEEPSIE, N. Y.

STRAWBERRIES.—Being engaged in a variety of experiments in the cultivation of fruit, and feeling a deep interest in horticultural pursuits, I propose, with the Editor's approbation, to contribute occasionally for the "Horticulturist," a few of the results of ten or twelve years' experience. This number will be devoted to strawberries. It will be perceived, however, that it dis-

cusses *practice* rather than *theory*. The vexed "strawberry question" is unknown in my garden, except so far as a practical mingling of the different kinds is attended to, for the purposes of impregnation. Nor have I procured all the different varieties which, from time to time, have been presented to the public, as being superior to all others. I have tried until I found those

which, in quality, and productiveness, and hardness, are entirely satisfactory, and far beyond my anticipations.

In August, 1837, I commenced by planting a bed of four feet by twenty-five with the "Hudson Bay," allowing three rows, sixteen inches apart, to the bed, and a distance of ten inches between the plants in the row. The next year I planted a like quantity of each of the following kinds, viz: "Keen's Seedling," "Bishop," and the "Prolific Hautbois." They were all planted in adjacent beds, in common garden soil. They all bore well except "Keen's Seedling," which was discarded in 1840. From the other kinds, my strawberry plantation gradually increased to upwards of half an acre prior to 1846, when the "Hautbois" were discarded, in consequence of their inferior quality. In the mean time, the "White Wood Alpine," and some other inferior kinds, were tried and rejected. In 1844, I obtained "Hovey's Seedling," and propagated from it extensively. With a view of testing the different kinds in field culture, in the spring of 1846, I directed my gardener to set out a lot containing about half an acre, in rows three feet apart. He used ten thousand plants; of which, one-half were the "*Large Early Scarlet*," and the other half were "*Hudson Bay*," "*Bishop's*," and "*Hovey's*." The "Hovey's" were planted among the *Scarlets*. That season they yielded about one hundred and fifty quarts. In 1847, they produced one thousand quarts; and in 1848, eight hundred quarts, although much injured this year by grass, and almost wholly shaded by trees. The soil is a heavy loam, without limestone. It had been under a heavy sod, which was broken up in 1845, and covered with peach trees, at a distance of ten feet apart. The land was not highly manured; as peach trees do best, with us,

on unmanured lands, in a good condition. The trees are now in full bearing. As it was designed to occupy the ground with strawberries only two years, they were suffered to run through each other, with no other care than occasional weeding.

The result shows that the "*Large Early Scarlet*" is the best bearer. The *Hudson's* ranks next, the *Bishop's* next, and *Hovey's* Seedling far—far behind all the others. Indeed, I have tried the latter in various ways, and have never been able to make them bear well; nor have I ever seen them bear one-fourth as much as the *Early Scarlets* uniformly bear with us. This also agrees with the general experience of cultivators of this fruit in this vicinity.

Strawberries can unquestionably be produced in great abundance, with more ease than any other valuable fruit. With a moderate degree of care and attention, they will yield at the rate of one hundred bushels an acre. They will grow freely on any soil that will give a good crop of corn; and, if planted early in the spring, will yield a fair crop in June thereafter. The kinds above mentioned do not require any covering in winter.

Notwithstanding the facility with which this fruit may be cultivated, several persons in this place are destroying their vines on account of their unproductiveness. The errors into which they have fallen are, that they plant them *in old worn out garden soils*, or *manure them too highly*. It is a common practice to cover the vines with a heavy covering of straw in the fall, and a heavy coat of manure in the spring. The consequence is, that the *vines* grow very luxuriantly but produce *no fruit*. The strawberry succeeds best on a good, deep, new soil; but not excessively rich. On such a soil, with ordinary care, the *Early Scarlet* and *Hudson Bay* will produce to

the entire satisfaction of the most avaricious horticulturist.

Early in the spring is the only *proper* time for planting. They may be planted in August or September; but the chances are ten to one that half or two-thirds of them will be killed by the hot and dry weather. If planted in the spring, not one in a thousand will die. I have abandoned summer planting entirely.

The finest strawberry plantation I ever saw, was in June, 1816, on the left bank of the Liffay, above Phoenix Park, near Dublin. They were growing on a steep side hill, extending along the river for two or three miles, and covered many acres. They were planted very closely in beds,—the hills not more than a foot apart, and kept free from runners. The fruit were beautiful, and the crop enormous. The street is lined with cottages, at which the fruit is sold. Hundreds and thousands of visitors, on foot and in carriages, flock thither from the city, daily, to enjoy the rich treat.

The fruit is brought to the visitors from the vines, with the stems on, upon a cabbage leaf, containing about as many as a New-York basket. Upon the table are plates, sugar, cream, and bread and butter, to which each person helps himself *ad libitum*; and pays for the whole, six pence sterling. Our little party, consisting of twelve Americans, directly from the packet, after regaling ourselves with such appetites for fruit as a month's voyage only can create, were *unanimous* in pronouncing the Irish strawberries *first rate*.

A week later, I found in the London markets an abundance of still superior strawberries. They were large, handsome, and of the very highest flavor. They are among the few strawberries that are suitable for "eating out of hand." They were called the "British Queen," and were, no doubt, identical with "Myatt's British Queen," described in "Downing's Fruits and Fruit Trees." B.

Poughkeepsie, August, 1842.

REMARKABLE TREES IN OHIO.

BY JACOB KNOOP, TROY, O.

[THE following accurate measurement of some remarkable specimens of trees, from a correspondent of veracity, has interested us very much, and will interest our European readers still more, as illustrative of the fertility of the soil in many portions of the great west. We will be glad to collect more facts of this kind, relating to extraordinary growth and development of trees in various parts of the country. ED.]

A. J. DOWNING, Esq.—Dear Sir—I have noticed, in the last December number of your valuable journal, on page 269, a de-

scription of the OVERCUP OAK, (*Quercus macrocarpa*,) which I think falls far short of the size which this majestic tree frequently attains; and not doubting that your readers "Down East" would be pleased to see the size of our western productions, I have measured one of these trees, standing on the farm of Messrs. KNOOP, about three miles east of Troy. Its exact measurement is as follows: the *diameter*, at one foot above the ground, 16 feet, 11½ inches; at 6 feet above ground, 14 feet, 9 inches. The trunk rises about 50 feet

without limbs, and with scarcely a perceptible diminution in size. The top branches rise 100 feet above the earth.

On the same farm, I observed a PEAR TREE, standing fully loaded with pears; the tree I found by measurement to be $39\frac{1}{2}$ feet high, and 5 feet in circumference four feet above ground, with a beautiful cone-like top.

Near the above tree stood an apple

tree, the seed of which was planted in the year 1800, by the late Mrs. KNOOP, which for size, thrift and beauty, I think cannot be excelled. Upon measurement, I found the circumference of the trunk to be 10 feet, 11 inches. Height of tree 42 feet. The diameter of the top 69 feet, 3 inches. Transverse diameter 72 feet, 9 inches, covering an area equal to $\frac{1}{15}$ of an acre.

JACOB KNOOP.

ON GRAFTING AND BUDDING ROSES.

BY DR. J. B. VAN MONS, BELGIUM.*

FOR grafting the rose, scions are used of such a thickness that when they are fitted they may equal the stock in diameter; by making the slit short of the axis of the stock, the slenderest scion may be used. The scion is to be cut on both sides, so as to form an elongated wedge, and the back of the stock must be made to fit the graft on both sides; a ligature is afterwards applied, of fine bass, (matting,) made water proof by pressing it first through a solution of white soap, and next through one of alum. The ligature is finally covered with a coat of marly clay, mixed with old slaked lime, and moistened with white of egg, beat up with four or five parts of water. This material is applied with a hair pencil. The best stocks for this mode of grafting are the shoots of any kind of garden rose.

We employ, in Flanders, the same mode of grafting with the Dog Rose, only taking the precaution that the cleft be of sufficient depth to allow the out edge of the scion,

which is immediately above its cut part, to rest firmly upon the wood of the stock. The ligature in this case is of bass; and we cover it with white mastic, made of Burgundy pitch, white wax, and boiled turpentine, with or without a little white size. Black mastic imbibes heat too much when exposed to the sun. The rose may be budded very well in the spring, if the buds are extracted with a small portion of wood adhering to them. For this purpose, scions are cut before winter and stuck into the ground, till the moment when in spring the bark of the stock will run. To prepare the bud, we make, firstly, a transverse cut into the wood a little below an eye, which incision is met by a longer cut downwards, commencing at a short distance above the eye, care being taken that a portion of wood is removed with the bark; this bud is inserted into the bark of the stock, which is cut like an inverted T, thus, \perp ; the horizontal edges of this cut in the stock and the bud, must be brought into the most perfect contact with each other, and there

* From Proceedings of London Hort. Society.

bound with water-proof bass, without, however, applying grafting clay. Eight days after the insertion of the bud, the stock is pruned down to the branch, which is immediately above the bud, on the opposite side; and this branch is stopped by being cut down to two or three eyes; all the side shoots are destroyed; and when the bud has pushed its fifth leaf, we compel it to branch by pinching its extremity; it will then flower in September of the same year.

You may also bud the rose in the spring, without waiting till the bark separates, by placing the bud, with some wood on it, in a niche made in the stock, similar to what would be formed by taking an eye for budding from it in the manner above described, and into which it is exactly fitted with a slight pressure. It is recommended to make the cut for the niche where there is already a bud upon the stock; when placed, the bud is then bound with bass, and covered with mastic.

For budding in June, I deprive the young shoots of the plants I desire to cultivate of their leaves; and fifteen days afterwards, the eyes or buds, at the axils of the leaves, are sufficiently swelled to allow of their being taken off and inserted as buds. The shoots from these buds often bear in the same year many flowers. In August and September, we insert our buds upon stocks that have not been pruned; they are placed on the old wood, not only because we bud low, but because this succeeds best. Whatever be the period at which budding is done, if the plant be well pruned on all its branches, the bud does not fail to push. The scion of a rose tree is seldom too dry to take, when the bud is inserted with a thin bit of wood behind its eye. I have thus budded successfully from scions

that had remained in a drawer for ten days.

When cuttings for buds are to travel, I pack them in long grass, and surround them with straw, disposed longitudinally. We prefer to graft and bud our roses not more than six inches above ground, firstly, in order that the whole head of the bush may be exposed to the eye of the observer; and, secondly, because the union is more certain, and the plant keeps the earth about it moist by its own shadow. Besides, it often happens, in bending down the stem of high plants, to see their flowers, that their stem is injured and the buds displaced by the curiosity of persons desirous of minutely examining them. At the pruning season, the branches of the budded plants which are formed into a head, are annually cut back to nine inches in length; and we do the same thing with our roses which are not budded; we thus obtain a great deal of young wood, and a bushy plant, as well as a large number of flowers. The pruning is performed at the end of January; all the four-year-old wood is cut entirely back, and the plants themselves are taken up and replanted at the end of eight years.

Whenever we wish to make our roses flower in the autumn, we prune them back in the spring, as soon as we can discover their flower buds. In order to obtain stocks, we take from the woods and hedges suckers of the dog rose which is very abundant in Flanders, and which, like every other tree and shrub, increases itself spontaneously, has its roots bent like that of a layer. We select plants without lateral branches, and take them up before winter, to be planted in their places after winter; and we cut down the stem to a foot and a half in length.

JEAN BAPTISTE VAN MONS, M. D.

GOOSEBERRIES WITHOUT MILDEW.

BY DAVID MILLER, JR., CARLISLE, PA., AND J. M. IVES, SALEM, MASS

THE difficulty of growing the finest English varieties of the gooseberry, in all but the extreme northern part of the Union, is familiar to every gardener in the United States. Here and there, it is true, they succeed well; but for the most part, the *mildew* seizes upon the berries before they are half grown, and renders them worthless.

We have just received two communications, relating to this subject. The first is from a practical cultivator, Mr. MILLER, of Pennsylvania. His method, it will be seen, is an entirely novel one, and consists in grafting upon a sturdy native variety, much more easily propagated than the gooseberry from cuttings. If it proves equally successful in other parts of the country, it will be quite a boon to the cultivator of gooseberries. The following is his account:—

Carlisle, Pa., July 24, 1848.

Dear Sir—As there has been a great deal said with regard to mildew on the gooseberry, I have a brief suggestion to make on this subject.

There has been a large variety of gooseberry cultivated in this section, which was so attacked by the mildew that it was altogether abandoned, until it occurred to me to graft it on the Yellow Flowering or Missouri Currant, [*Ribes aureum*.] Grafted on this stock it does well, even in unfavorable situations. I have one stock worked in this way, which is about 8 feet high; and its numerous shoots are fairly bent down with the weight of its enormous crop of fruit.

Yours respectfully, DAVID MILLER.

The second communication is from J. M.

IVES, Esq., of Salem, Mass. Accompanying it was a small box of *Houghton's Seedling Gooseberry*, a variety which Mr. IVES has cultivated for some years, and which he commends highly as being wonderfully prolific, of good quality, and entirely free from mildew in every soil.

This variety, we learn, was raised from seed by Mr. ABEL HOUGHTON, of Marlborough, Mass. Mr. IVES suggests that it was raised from the *native* species of the gooseberry found in our woods; and of this, after examining the fruit and leaves, we have not the slightest doubt. We are, indeed, exceedingly glad to find that our indigenous gooseberry so easily improves by reproduction and cultivation, and can scarcely doubt that the seeds of the present variety, if planted, would soon give new varieties nearly or quite equal to the *Lancashire* berries, and also, (which is the great gain,) with a constitutional habit adapted to our climate, and therefore not liable to mildew. We extract from Mr. IVE's letter as follows:

"This is certainly one of the most valuable gooseberries. It is entirely free from blight; the plants are very hardy, and bear great crops of fruit. It has never as yet blighted in our locality, is exceedingly luxuriant in growth, with long pendant shoots, similar in habit to the 'Crown Bob.' You will see by the foliage that it is a native seedling, as I suspected; and from an examination of the flowers last spring, I found them to resemble the wild gooseberry in the calyx, etc. Yours truly,

"Salem, Aug. 1, 1848. J. M. IVES."

The fruit is very thickly set upon the

branches, small, oval, and smooth. The skin is thin, glossy, colour pale, or dull reddish brown, marked with faint greenish lines. Flesh tender, juicy, and of a sweet and pleasant flavor. The fruit ripens at the close of July. Though not a high flavored gooseberry, as compared with the best European varieties, yet the great crop which it uniformly bears, and the ease with which it is grown, will no doubt bring it into general cultivation, both as a market fruit and for home consumption.

We borrow a cut from the *Boston Cultivator*, (which journal rates it highly,) which gives an accurate representation of this variety.



Fig 19.—Houghton's Gooseberry.

FIELD CULTURE OF THE RED ANTWERP RASPBERRY.

BY S. A. BARRETT, MILTON, N. Y.

THE *true* Red Antwerp Raspberry is, perhaps, the most profitable of all fruit to cultivate for market. A plantation of three-fourths of an acre, belonging to Mr. Nathaniel Hallock, of Milton, Ulster county, N. Y., has, the past season, produced *thirty-three hundred baskets*, which he sold in the New-York market at an average price of ten* cents the basket. Here are \$330, gathered in one month, from three-

fourths of an acre of land! and at a comparatively trifling outlay of labor and money.

The plants have been set one, two, and three years; so that they had not *all* attained a full bearing age. Indeed, not more than one-half of them had; as the third season from the planting is the *first of full bearing*.

A greater sum of money than the above named may have been gathered, in a single season, from the same quantity of land; but when the small amount of labor which

* Higher prices were obtained by others, in the same market. One gentleman received a shilling a basket for the season, and the purchaser paid the freight.

produced it, is considered, the yield is truly enormous.

It were superfluous to tell the readers of the "Horticulturist," *how* a crop of the Antwerp is produced; but it may not be superfluous to tell them that a strong, deep loam, with but little sand, is the *only* soil from which they may expect a full crop, *every* season. A slate soil, a *gravelly* loam, or a stiff, cold clay, cannot be *relied upon* for this fruit.

Mr. PARSONS, of Flushing, Long Island,

somewhere says (I quote from memory, and it may be incorrectly,) that the Antwerp has been in cultivation in this country about 30 years; yet the markets have never been sufficiently supplied with it. And he might add, that not one-tenth of the denizens of our large cities, who are abundantly able and willing to supply their tables with luxuries, have ever so much as *seen* a specimen of that delicious fruit—the large Red Antwerp Raspberry. S. A. BARRETT.

Milton, August 14th, 1848.

TO PREVENT THE "ROT" IN GRAPES.

BY A JERSEYMAN.

DEAR SIR—You will probably call to mind a conversation between us when I was at Newburgh in 1846. I laid before you an account of the disease which had then made its appearance in our native grapes,—the Isabella and Catawba. It commences about the first of July, in the form of a dark spot upon a few berries. These afterwards become entirely spoiled by the disease; and this rot spreads from berry to berry till a large part of the bunch, or, in many cases, whole bunches are entirely spoiled by it. Wet seasons, unsuitable soil, and various other causes have been assigned for it; but as yet, to my mind, no satisfactory explanation has been given.

You advised me, at that time, to apply sulphur and lime in the form of gypsum, or common ground plaster of paris; and you also advised me to use the leaves and prunings of the vines for manure.

This is the second season of my trying your advice; and as I received it with the promise of making known the results, I accordingly send you a brief statement,

which I think proves that the advice was good.

I have about twenty vines of the Isabella and Catawba grape, in a full bearing state, trained on upright trellises. In the month of June, (latter part,) 1846, at the time I made the summer pruning of the vines,—cutting off the side shoots two joints above the fruit,—I opened shallow trenches, say four or five inches deep, at the roots of the vines to be pruned. As fast as the pruning was finished, the leaves and young stems cut off were laid in these trenches, *sprinkled with sufficient gypsum or plaster to whiten the foliage*, (from a pint to a quart per plant,) and the whole trodden down and buried in the trench.

As soon as the leaves fell in the autumn I repeated the process,—raking up the leaves and burying them around the roots of the vines, after dusting them over with plaster as before.

In June, 1848, the present season, I repeated the same operation at the summer pruning.

Now the result is as follows :

Although the season is remarkable for the prevalence of the rot, not a berry on any of these *six vines*, so treated, is affected; the crop being, on the contrary, very good,—the fruit large, and increasing in size. The vines, too, are remarkably healthy and vigorous.

On the other hand, the remaining vines, fourteen in number, are every one affected by the rot—some of them very badly; and even on those least affected, 10 per cent. of the berries are destroyed by this disease.

I cannot, therefore, escape the conviction that the treatment you proposed has so far been effectual in preventing this disease.

I ought to add that the vines of my neighbors generally are much affected by the rot this season, and that I have seen no Isabellas or Catawbas this season that surpass in appearance those on the six vines alluded to you.

This "rot" is a disease that has only appeared within five years in this part of the country. At the south, I am told, it has always existed. On the Ohio, as I gather from Mr. LONGWORTH's remarks, in your journal, it is quite troublesome in the vineyards; and it appears to be on the increase through the country generally. A remedy for this disease must be considered a public

benefit, and I therefore send you the above remarks for publication, if you deem them worthy. Your friend, A JERSEYMAN.

August, 1848.

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REMARKS.—We thank "A Jerseyman" for his account of the apparently quite successful experiment. Our advice was based on two considerations; in the first place, we supposed that the rot might be owing to the want of some inorganic substance in the soil, necessary for the perfect maturation of the grape; and secondly, perhaps, to the use of crude animal manures. As *sulphur* and *lime* are large constituents of those volcanic soils abroad, where the grape thrives best, we recommended the use of a common substance—gypsum—likely to supply them; and as the foliage and shoots of the vine are well known to afford the most perfect food for the growth of that plant, we recommended the use of the prunings and fallen leaves, buried in the soil, for manure.

It is worth while now to repeat the experiment on a larger scale, in vineyard culture, and we accordingly recommend it again to the vine-dressers on the Ohio, with a similar request for a statement, when they are ready to "report progress." ED.

DESCRIPTION OF THE POLMAISE MODE OF HEATING GREEN-HOUSES.

A GREAT deal of interest has been awakened in England, for two or three years past, in a new mode of heating hot-houses, green-houses, pits, &c., called the *Polmaise method*. It takes its name from Polmaise, in Stirlingshire, the place where it originated. The first account of this mode was published by Mr. MURRAY, of Polmaise, in

1844; but to Mr. MEEK, of Holmsdale House, Nutfield, belongs, perhaps, the merit of improving the apparatus, and fully proving its merits to the horticultural world.

The great superiority of Polmaise heating, over the old modes by brick flues, and hot water pipes, are the following:—

An equal and uniform temperature in all parts of the house; a constant circulation being maintained of heated air towards the coldest part of the house, and cold air to the warmest part.

Improved health of the plants, caused by the fresh warm air (rendered moist by passing over a small tank or pan,) *circulating* freely in all parts of the house.

A much smaller consumption of fuel to produce a given temperature than in any other mode of heating.

Economy in construction; the cost being not more than a third that of hot water pipes, and somewhat less than that of flues.

This method of heating has now been practiced for three years in various parts of Great Britain; and though, like all innovations, it has met with opponents among those whose interests or prejudices bias them in favor of the old modes, it appears now to be pretty generally conceded that "Polmaise," as it is familiarly called, is a great step in advance of the previous modes of heating horticultural buildings.

Several of our correspondents, anxious to make a trial of it in this country, have solicited from us details of its construction and operation. We therefore endeavor to place the matter as clearly and concisely as possible before them.

The principle of the Polmaise method is one long well known in science, viz., that cold air descends, and hot air ascends; and that a vacuum being caused by abstracting a portion of the air from one part of a room, it will be directly filled by a corresponding quantity of air that will flow in to supply its place from another part of the room.

In a hot-house, heated in the ordinary manner, by flues or hot water pipes, running round at the level of the floor, the warmest part of the house is at the apex of

the roof, and the coldest part at the floor; because the heated air rises, and the cold air settles at the bottom, and there is little or no circulation. From this want of circulation, there is also an accumulation of heat about that part of the house nearest the boiler or furnace; and, in very severe weather, the plants there are liable to be injured by heat, while those in the opposite end are with difficulty kept from the ill effects of cold. A considerable part of the heat produced by the furnace or boiler is also lost in the mass of materials that surrounds it.

In a hot-house or green-house, heated by Polmaise, the constant motion of the air from the furnace towards the coldest end of the house, and from the latter back again to the furnace, distributes the heat uniformly throughout the whole of its area. While, as we shall see, by small openings provided in the wall near the level of the floor, fresh air is admitted, passes at once into the cold air drain, over the furnace and into the house,—thus providing a complete system of ventilation, without any of the injurious effects of cold drafts through open doors or windows in the common mode.

To illustrate our meaning, we submit the two following cuts, showing the section and ground-plan of an ordinary lean-to green-house, heated by Polmaise. In Fig. 20, A is the green-house, B the back shed,—the latter containing the sunk area or stoke-hole; C, for feeding the furnace; *d*, is the level of the floor.

In this section, 1 is the furnace, with an air chamber, 2, all round it; 3 is the cold air drain; 4 the register, or opening in the hot-air chamber, through which the heated air passes into the *house*.

In Fig. 21, 2 is the furnace and hot-air chamber with its opening, 4, for the exit of the hot air; 3 the cold-air drain. This

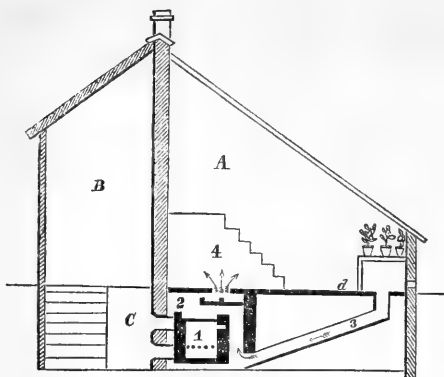


Fig. 20.—Section of a Green-House, heated by Polmaise.

drain is laid under the walk,—the top being covered with flag stones, tiles or plank, as may be most convenient. At the extreme ends of this drain (the coldest parts of the house,) is an opening or openings, 5,

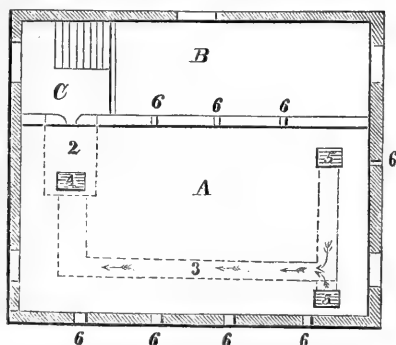


Fig. 21.—Ground plan of the same.

5, formed at the level of the floor. There should always be a *descent* in this cold-air drain, from the mouth (5) to the other end where it enters the air-chamber, in order to facilitate the circulation of the air.

It is easy to see, that when a fire is lighted in the furnace, the air in the chamber (2) will become heated, and will immediately rise through the opening (4) into the body of the house. To supply the place of this air, that thus passes out, the cold air in the drain (3) will immediately flow into the hot-air chamber, rise over the

furnace and become heated, and also pass into the house. This cold-air drain being emptied, the cold air at the other extremity of the house will rush into the mouth of the drain (5,) and move on likewise towards the hot-air chamber. The subtraction of cold air at that end of the house most remote from the furnace, causes a movement there, and to supply its place the heated air—pouring in from the hot-air chamber—flows in a continuous stream towards that part of the house (5) where the mouth or mouths of the cold-air drain lie. This circulation of the cold air towards the warmest part of the house, (through the drain,) and the warm air towards the coldest part of the house, (through the atmosphere of the house itself,) once commenced, continues as long as the fire is kept up. The increased health of the plants, caused by this genial breeze, can scarcely be a matter of dispute; and the advocates of Polmaise in England insist most strongly on its great advantages in this respect. By keeping the shallow iron tank, which is placed just below the opening of the air chamber (4), filled with water, this hot-air stream may be made more or less damp at pleasure. The advantage of the small ventilators (6)—apertures in the wall three or four inches square, just above the floor—will, we think, be found much greater in this climate than in England. These openings must be furnished with small sliding doors or lids; and by means of these, an abundance of fresh air can be introduced into the house without the least danger to the plants themselves,—a point always difficult, with us, when the exterior temperature is near zero of Fahrenheit. In extremely cold weather, the ventilators in the back wall (opening into the back shed, B,) may be used.

The furnace is intended for coal, and

our anthracite will be found to afford an excellent steady fire, easily managed. It should be built with precision, and in a workmanlike manner, to insure against the escape of gases into the air chamber, and thence into the house. Though in the plans we have presented, the furnace is placed under the floor of the green-house, (the mode securing the greatest economy of heat,) it is quite as frequently placed wholly in the back shed, with an opening in the back wall of the green-house for the emission of the heated air.*

We conclude this article with two working plans of the furnace, showing its construction for a hot-house of moderate size, with the measurements given in feet and inches. Following this, any skilful mechanic may erect a Polmaise furnace without further directions. It is Mr. MEEK'S latest plan; and we copy it, with LINDLEY'S remarks, from the Gardeners' Chronicle.

We are much indebted to Mr. Meek for the following plan and description of his Polmaise apparatus, with the latest improvements. The plan is now given of such a size, and in such detail, that any village brick-layer may construct it without difficulty or uncertainty. The iron work he can procure of his ironmonger. We strongly advise the public not to attempt to improve upon this, which is the result of careful experiment and long experience; but to attend to every part of it with the most scrupulous exactness. The multitude of houses, and other buildings, now successfully heated upon this plan, and the beautiful condition of the plants in them, have finally disposed of the objections made first to the principle, then to the action, and lastly to the safety of Polmaise.

Explanation of Wood-cuts.

A. Four $4\frac{1}{2}$ inch brick piers on which

* A brick furnace is no doubt the best, as retaining the heat longer, and as being more uniform in its temperature; and that described in the following page is a very complete one. There is an air-tight stove, for anthracite coal, which has recently come into use in New-York, which gives a very mild and steady heat with a small consumption of fuel, and which, we think, might also be used for Polmaise heating.

the stone slab B B is supported, 9 inches from the floor of the hot chamber.

B B. York flagstone, 3 inches thick, 3 feet square, on which the stove is built.

C C. Ash-pit, 9 inches deep; the stone forms its floor; under this the chief portion of the cold air passes on its way up the sides of the stove, and by this means much heat usually lost in the ash-pit is economised.

D D. Ash-pit and furnace door (cast iron,) $\frac{1}{4}$ or $\frac{3}{8}$ inch thick; they are 11 inches long, 6 deep, and 9 wide, like boxes without bottoms laid on their sides; they have a flange 2 inches deep all round their edge at bottom, which fits into the centre joint of brick work of the stove; thus any exhalation of gas, when fuel is supplied, is prevented escaping into the chamber; these doors extend $4\frac{1}{2}$ inches into brick work of stove, 2 inches across the area between wall of stove and that of stoke-hole, and $4\frac{1}{2}$ inches into wall of stoke-hole=11 inches. Thus these two walls are separated, a draft of air constantly flowing up between them; if the furnace door is thought too shallow it can be made 8 inches deep instead of 6.

E E. Furnace. 1 foot 9 inches deep, 1 foot 6 inches wide; stove built of Newcastle fire brick, set in fire clay. The brick work must be carefully done, every course puddled in with fire clay, and the joints of brick work properly broken; the outside parged with best hair mortar and cowdung.

F. Cast iron plate, 1 inch thick, 2 feet square, *should be cast six months before using*. It forms the top of furnace. Its size allows it to rest 3 inches on the brick work of stove; on its upper surface, 2 inches from the edge, is a rim or rib, either cast on the plate or formed of $\frac{1}{2}$ inch cubic bar iron, slightly fixed by screws to the plate itself. The course of brick work on which the plate rests must be worked very true, to give the plate a level bed.

G. The cast or wrought iron rim, the use of which will be presently described.

H. Four thin pieces plate iron, $\frac{1}{8}$ inch thick, about 6 inches wide, to be used thus: After the plate is laid on, the outer course of brick work of stove must be brought up level to it exactly, either by tile or other

means, and the tile or split brick must not touch the edge of the plate, but $\frac{1}{2}$ an inch space is to be left between the edge of the plate and the edge of the tile. The four pieces of plate iron are then to be laid upon the tile round the stove, and a course of brick work upon these again, to keep them steady; and they are to be so placed that they project over the four edges of the plate till within $\frac{1}{2}$ an inch of the rib of iron; they will thus cover over an $\frac{1}{2}$ inch clear space all round the edge of the plate (marked I); into this the plate can freely expand, while upon these thin pieces of iron, between the top brick and the rib on the plate, fine sand is laid, the position of which can never be deranged by the expansion of the plate, as is the case if the sand were laid in the space I; while, if the plate is cast with a rim falling into a groove of sand, the sand prevents its expansion, and it either cracks or arches, and in time is lifted out of the groove, the sand getting underneath it.

I. The $\frac{1}{2}$ inch space above explained.

K. The flue, formed of cast iron (hot water) pipe, a socket, an elbow and straight piece rammed together with iron filings and sal ammoniac; this conducts the smoke into the old flue in stoke-hole, pipe 4 inch bore; it is swept out by a flexible brush at the soot door, R, and being swept by the blast it forms a considerable addition to the heating power; the socket fixes into the brick of stove exactly like the door, having a piece of plate iron screwed on to its inner rim like the doors, and for the same purpose.

L. Cast iron water tank with division, one or both sides being kept full, according as much or little atmospheric moisture is required; the purposes to which the house is devoted must regulate the size of this; if for a moist stove temperature it cannot be well too large, if for green-house, 2 feet by 3 feet will be ample with division; the bottom of the tank also forces the air over the plate before allowing it to escape.

M. Flange on doors, already explained.

N. The flap of door which hangs on a pivot, lifting on or off; the ash-pit door is represented with flap open, the opening is enlarged or decreased as much or little air is required for draft to the fire.

O. Fire bars 3 inches thick, forming a square of 18 inches; care must be taken that these do not bind in the brick work of the stove; they should have half an inch play allowed.

P. Is a screen of slate with some holes in it (as shown in ground plan) for the purpose of forcing the greater part of the cold air to pass under the stove and up the three other sides, instead of allowing it at once to pass up the sides nearest to it, while the apertures allow a portion to pass up.

R. Soot door in flue. It would be well to have a damper just beyond this.

S. A screen for the purpose of forcing the hot air over the tank before it discharges itself into the house, and also to prevent the intense radiation of the stove.

T. The hot-air chamber, 5 feet 2 inches deep, 4 feet wide, (inside measure;) the walls are formed of brick on edge. If the ground is loose this should be $4\frac{1}{2}$ inch brick work; excavate sufficient to allow 2 or 3 inches of saw dust to be thrown down behind the wall of the chamber.

Remarks.

It is not necessary that the entire apparatus be thus sunk below the level of the green-house, although it is desirable to give the cold air drain as much fall as the nature of the ground will allow—it is quite immaterial what position the cold air drain or the stove occupy; they may each be placed where most convenient. The circulation of air caused by the apparatus of which this is a description is very great, so much so, that when the entire house is closed, the internal motion may be fairly described as a breeze; while the economy with regard to fuel will be found extremely great; the positive consumption will be best stated in the coming winter. The stove is 9-inch work; any person at all fearful of gaseous leakage may at once render this impracticable by using 14-inch work with a layer of sand even half an inch thick between the 9 and outer $4\frac{1}{2}$; or this provision may be made for safety-sake on the side where the cast iron flue leaves the furnace; such a stove would form an immense accession of heat, though the temperature would be long rising.

ON VITALITY AND LONGEVITY IN FRUIT TREES.

BY PROFESSOR TURNER, ILLINOIS COLLEGE.

MR. DOWNING—DEAR SIR—In my communication of April last, I did not intend to pledge myself for the next number, though I did intend to have written before this time.

I was doubtful, until I saw the article in print, whether you would think proper to publish it. At that time, which was about the middle of April, I had just received about 150 seedling pear trees from Iowa, 200 miles north of this, which I had procured for the purpose of prosecuting my experiments in my fruit yard.

The buds had all burst before they came to hand; they were about five years old, and seven feet high. According to my principles, I carefully reset them, and they ought all to have lived, notwithstanding their unfavorable condition; but, to my utter surprise, most of them, in the course of two or three weeks, shed off all their living buds and leaves, and apparently died. This was the first fact that I had seen, which I could not reconcile to my theory. I knew not how to dispose of it to my own satisfaction, and forbore to write you until I could. However, in a few weeks they all revived, and have now started finely into their August growth. This, on the other hand, greatly confirms me in my previous opinions; for not one tree in ten, which had no seedling root, would, under like circumstances, have recovered. Their temporary failure was owing to obvious causes.

After they had revived, another most interesting fact occurred, the results of which I have waited to see. One afternoon in May I grafted about fifty Beurre Diel pear scions into the roots of small thorns

one year old, beneath the ground. Some scions from the same bunch had been grafted before, and were growing vigorously in the same row; and the tree from which they were taken in winter was standing near by in perfect health. The day after the grafts were inserted became suddenly excessively hot,—thermometer standing at above 90 degrees.

The scions generally stood covered in the earth except one bud and about two inches of the top. Now mark the result: The third day, to my utter surprise, I found every scion, which stood fairly exposed to the sun at three o'clock the day before, with a ring of the bark, about one-quarter of an inch wide, *entirely blackened and killed*; extending sometimes half round, and sometimes entirely round the scion near the ground, at that point where the reflected and direct rays of the sun struck the scion in the same place. About half the whole number grafted were in this condition; while all those which were at that hour accidentally shaded by a clod of earth, or a dis severed branch, or twig, or by the adjacent trees, were every one unharmed, and are still growing finely. As to the sun-struck scions, those that stood leaning from the sun, and were blackened all round, all turned black to the top and died immediately; while those which were, from their position or other cause, so far protected as to be injured only partly round the scion, lingered along and exhibited all the symptoms of ordinary blight until they died. Not one that was blackened that fatal day has survived, and not one not blackened that day, has died. Here is, it strikes me,

rather a peculiar case of "frozen(?) sap-blight," is it not?

A third fact, which I mention merely as a fact, though I am not aware that it has any connexion with the main subject of my paper: Some of my pear trees are now bearing fruit, and are ten or twelve years old. I noticed in May that the leaves began to assume a peculiar appearance, which has continued to this present time. It is a disease which to appearance, so far as the leaf is concerned, bears a striking resemblance to tubercular consumption in the lung of the human subject. At first, small spots, all over the central portions of the leaf, appear, a little paler green than the healthy parts; these spots next assume a yellowish cast, and rise into an apparent tubercle or wart on both sides of the leaf, thickening, and extending, and ulcerating, and running together, until at last whole patches of the middle or extremities of the leaf turn black, and fall out dead as though seared with a hot iron. In other words, they seem to ulcerate and slough off, while still the tree, in other respects, continued to grow and look healthy.

I find this disease on other trees in this vicinity. I can hardly think it the effect of either insects or heat. What is it? I cannot tell. Such extensive injury to the respiratory organs must impair the real, if not the apparent health of the tree.

But I will, for the present, leave these facts, and proceed to apply the principles of vitality and longevity, laid down in the April number, to some of the diseases in trees in the west. If the principles there defended are correct, we should of course naturally suppose that the greater the part of a grafted tree which came from the seed, all other things being equal, the greater the vitality and longevity of the tree. Hence, the best of all ways of grafting would be to

let the seed expand its vitality for some eight or ten years, and then graft, or bud the scions into the outer twigs and branches of the grown tree. But as this would be laborious and expensive, and as the cutting off of large branches would mutilate the tree so as to endanger a local disease, we must find some practical medium. But I believe it will be found that the entire trunk and root of the tree, at least, should in all cases be made from the seed, and not from the scion; and if more of it, still so much the better.

The next best mode would be to put a scion into an entire seedling root; the next best, into a part of a young seedling root; and the worst mode of all, would be to graft from the sprouts or roots dug up around an old tree; for aside from the want of vital force, such trees are very liable to be affected with latent chronic diseases, analogous to consumption and scrofula in the human system, which, in fact, causes them to throw out these sprouts so bountifully from the root. That all such trees are worthless here, in the west, has already become notorious. Most of the sprouts upon which our pears in this vicinity were grafted, were taken from an old barren pear tree in Alton, and the scions put in the root below ground; and I do not know of one in the county, so made, that has lived fifteen years. But so far as I can learn, this process of mutilation has been going on all over the United States with the cherry and the pear for several generations of scions, without any attempt to refresh them in new seedling stocks, except where emigrants have gone to new settlements and carried pear seeds with them, and thus of necessity recruited a worn out scion with the vital force of a fresh seedling.

In this state of things, can it be wonderful that our most delicate varieties of cher-

ries and pears have become short lived, and excessively prone to disease.

It is now but a few years since this same process of mutilation was commenced with the apple. Who ever heard of sun-blight and premature death in the apple, so long as the old modes of grafting into good seedling roots were practiced? But it is already almost as common in these parts in the apple as in the pear; and whole orchards, made from sprouts and pieces of roots by this absurd mode of grafting, have been swept off by premature disease and death, while seedling trees of the same age, and even trees grafted in the top, continue to thrive and grow vigorously.

It is said by nurserymen that trees thus made from pieces of root grow more clean, and straight, and free from spurs and sprouts. True—most true; and that alone is enough to condemn them; for the eye of the practiced physiologist sees in the tall, straight, luxuriant, branchless, thornless shoot, so made, the same marked indications of premature decay and death that the physician sees in the tall, slim fair favored, smooth skinned, scrofulous boy, or in the pale faced, girded and corsetted maiden. It may be beautiful; but it is the wrong sort of beauty for this rough, dying world. At all events, our most intelligent nurserymen are becoming fully awake to the fact that trees so made, on this rich soil, whether apple or pear, will not live out half their days; and our farmers will learn it to their sorrow within twenty years, though many of them have found it out already. Now I suppose this process of deterioration does and will increase from one generation of trees to another; and if the same practice is continued as long with our apples as it has been with our cherries and pears, they will become equally precarious and tender.

I advert to this, however, as only the predisposing and constitutional cause of the disease in the apple, and especially in the pear and cherry, and not as the immediate or proximate cause. Just as tight lacing and hard drinking are great predisposing causes of many diseases in the human frame, which would, perhaps, after all, never be developed, unless developed by some proximate cause in climate or diet.

The proximate cause alone, without the predisposing, may, and doubtless does, in both cases, often produce the disease. But it is only when both are united that its ravages become general and frightful.

Another predisposing cause is absurd modes of pruning, even in the nursery, and ever after. A tree is naturally a tree; it is not a shoot or sprout, a mere riding switch or walking cane. Each branch above has its own root below; and whenever a branch is cut, the corresponding root is proportionally paralyzed, enfeebled or killed. Besides, nature no more designed the trunk of a tree to be exposed to the hot sun than she did the body of a man; and she everywhere guards this important point just in proportion to the real danger. Hence, trees that will form trunks sixty feet long in the shade, will not make them ten feet long in the sun. Hence, too, all our forest trees, whose branches are quite high up in New-England, and still higher in Nova Scotia, around the burning prairies of Illinois throw their branches quite down to the ground, so as to screen themselves entirely from the hot sun. I verily believe many of our fruit cultivators in the west would kill all the forest trees in the state, if they were sent out with the pruning knife and hand-saw to cultivate(?) them. For there are few trees of any sort in the state that can endure the scorching rays of our hot August suns, thrown directly at full length upon

their naked trunks. This marked tendency in all our forest trees to screen their trunks, every passing traveller observes. So the young pear or apple tries to screen its trunk, or to prepare to, even in the nursery; but the jack-knife of the nurseryman will not let it. It however makes out to hide behind its fellows; and, as slaves in the hold of a prison-ship keep each other warm, so they continue to keep each other tolerably cool, until six feet high and half an inch through, they are consigned to the orchard as branchless as they are worthless. But now comes the tug of war; the hot sun scalds, and the poor tree tries to throw out a protecting branch or shoot—now on this side and now on that; but no, that inexorable jack-knife allows no such liberties. Beside, the farmer's grandson may want to plough there sometime, and the limb would be in the way; and so, off it goes. So, for the next five years, the ill-fated tree stands and scalds in the sun, and whips in the wind, with a trunk or rather a stem about the size of a man's finger, and six or seven feet long, and with a head in size and shape much resembling that of Ichabod Crane, of Sleepy Hollow notoriety. But no sooner has this poor head contrived to afford, after all, a tolerable protection to the imploring trunk below, than it finds the fated hand-saw of the cultivator whisking about its ears, till at last, despairing both of shade and of peace in this world, it gives up the ghost and dies; and who blames it? Surely no feeling man can. Every cultivator in the west must have noticed the extreme effort of all trees, and especially of the pear tree, to conform to the general law of our climate, and the habit of all our forest trees, by attempting to throw out side shoots year after year, until the bark becomes so indurated that it is impossible; and then it betakes itself to

the last resort of throwing a crop up around from the root. Now, my dear friend, this is an intimation to you, that the pear tree does not intend to become a fishing pole, nor a mere ornamental shade tree; but it intends to bear you some good pears one of these days, and would do so if you would let it alone; it also intimates, in the most modest and respectful manner, that under a hot summer sun its poor body wants some clothing as well as yours.

The necessary effects of this sort of mutilation upon the vital power and longevity of a tree are at some points apparent. In the first place, it is a constant interference with the natural and healthful functions both of the top and of the root; filling the top and trunk with cavities, and patches of dead and putrescent wood externally and internally, and the root with paralyzed and dead or dying roots and rootlets,—all inviting and hastening every natural tendency toward disease,—probably increasing from generation to generation. What constitutional effect it would have if all the fingers and toes should be cut off from a community of human beings through several generations, and the sprouts trimmed if they attempted to grow again, we cannot say. But we can hardly think it would not in the end enfeeble the natural constitution of the whole race, and at last introduce new and unaccountable organic or constitutional diseases. And is there not a strong probability that cultivated trees have been constitutionally, as well as individually, injured and enfeebled by a similar process? The philosophic world have paid little attention to the laws and conditions of health in trees, compared with that bestowed upon animals, and of course but little is as yet certainly known. It has generally been taken for granted, that because a tree could not be killed as easily

as a man by external mutilations, that therefore it could scarcely be killed or injured at all. But recent observations tend wholly in one single direction; that is, towards establishing a close and hitherto unsuspected analogy between the functions and powers of life, both in the animal and the vegetable world; and sound philosophy should lead us to suspect, rather than otherwise, that such analogies actually exist in multitudes of cases where they have not as yet been demonstrated.

Another effect of pruning the trunks of trees severely, results from disturbing the natural relations of the ascending and descending sap. The ascending sap goes up in the wood; the descending returns by the bark. It is near enough the truth for illustration, to say that the capacity of ascent is most nearly proportioned to the solid contents, while the capacity of descent is nearer to the superficial contents of the trunk or branch in all young trees. Hence, the capacity of ascent increases as the square of the surface, or near that ratio, while the capacity of descent increases only as the surface. Hence, where trunks are exposed to the sun, or where plenty of light and air is found for the leaf, nature commences her work of dividing the trunk into branches near the ground, so as to increase the surfaces for the return sap, while the interior contents are proportionally diminished through which the current rises; and the richer the soil the greater the necessity of this increase of surface for the return sap; and hence the constant effort, in such soils, in trees to throw out branches from the trunk near the ground when young; and if prevented, around the trunk from the root when old. Some years since, I took a pear tree from a nursery six years old; its trunk was already trimmed up five feet. I attempted to make it grow in the form the

nurseryman had given it, by cutting off all the sprouts which continually were shooting out from the sides of the artificial trunk. The tree refused to grow vigorously upward under the best care, and finally gave evident symptoms of paralysis in the top, by the stunted, short, knotty shoots it would make there every year, while still it would throw out the most vigorous sort of shoots from the side of the trunk. I suspected the cause, and allowed the shoots on the trunk to grow on it, and on all my other trees which were inclining to the same condition. In less than two years, they covered their entire trunks with limbs quite to the ground, and then started into a vigorous growth throughout the whole top, which they have continued to this time, and are now loaded with fruit. Now mark; the nurseryman, from whom I bought these trees, set out a large number in his own orchard the same spring, and continued his practice of trimming the bodies until the year of the pear-blight, (in 1844, I think,) when every one of his trees were killed to the ground, while not one of mine was injured, except a single tree on one side, which had for some reason refused to throw out its side limbs. The same season destroyed more than nine-tenths of all the pruned pear trees in the county, while my own yard, and one other in which no pruning had been allowed, were the only ones, so far as I know, which escaped.

At the time I began to allow the branches to grow on the above named tree, the trunk, just below the upper branches, measured nine inches round; all the branches together, just above, measured seventeen inches round. Hence, the surface for the return sap was, at the crotch of the tree, five feet from the ground, suddenly contracted in something near the ratio of seven-tenths to nine, while the passage of the as-

ceding current could not have been contracted more than in the ratio of four to three; and, considering the diminution of the heart wood, probably was not at that point contracted at all. The necessary mechanical result is plain. The tree in a rich soil poured a full current of sap into the top and leaf, while every year its relative return surface was continually diminishing, and all the return sap which at the time of measurement flowed over seventeen inches of surface was, at the crotch of the tree, suddenly compressed into a surface of nine inches in circumference; and through this compressed surface it was compelled to run full five feet in the hot sun, before reaching the root, without being refreshed by the new and fresh sap from a single side shoot. Of course, all the vessels in the bark of the trunk were filled constantly with the necessary pressure from above, with more sap than they could safely return to the root or deposit on the trunk, and were attempting to relieve themselves by throwing out side shoots. This not being allowed, they were gorged more and more as the leaf and top increased, until either organic ruptures—as in the case of the cherry tree—or the chemical action of the hot sun upon the gorged and impeded sap—as in the case of the pear—completed the catastrophe of obvious disease or death. I have just now measured the pear tree alluded to above, and find, since it has had its own way, that the relations of the superficies at the crotch, which is now lower down, have changed from the ratio of seventeen to nine to the present ratio of twelve to eighteen,—showing that the increase between the times of admeasurement to have been three inches on the stem to one inch on the branches above. The trunk of the tree is also now entirely screened from the hot sun by the side branches it has thrown

out; and the sap in the stem is frequently refreshed by the return sap from these side branches. There is no appearance of paralysis in the growth of the top, nor of gorged sap in the stem, fermenting in the hot sun, and spreading signs of disease on its outer bark, or diffusing them throughout the whole trunk and top of the tree. In a word, the tree has returned, or is at least fast returning, to a vigorous, natural, and therefore healthful condition. But after all, as it was originally made from a vicious grafted sprout, instead of a healthy seedling root, it will probably, in spite of all other cure, die prematurely. Had I time to write, or could I suppose that you have room to publish details of this sort, I could give them to any extent.

In this country, the blotch on the large limbs and trunk of the pear and apple tree, in what is called the blight, is always on the western side, generally southwest, or facing the sun at the hour of extreme heat. And wherever I have found it on the northwest side, it has always been *near the ground*; and, on further and closer inspection, I have found in such cases that the grain of the tree, wound—as it is called—as it descended, toward the north; and that the injury, after all, was evidently done on the southwest side of the tree, at some distance above the ground; and the scalded and vicious sap there produced, settled with the grain of the tree, by an obvious law, round and down to the northwest side where, like other dead matter, it accumulated to poison the bark, or to freeze and peel it from the trunk the next winter.

It is obvious how rich soil or high culture, with the plough or with manure, or excess of moisture, would materially and necessarily increase these dangers and evils by increasing the plethora and stagnation in the return sap; and if sudden cold is the

ultimate cause of the final catastrophe, as some think in other parts of the country it is, it is still obvious how in that case this high culture should hasten the final catastrophe. In that case, there would be an artificial excess of return sap in the stem, unprotected from the cold, just as in the other case the same plethora is unprotected from the heat.

The case of the scions alluded to above, in connexion with all other facts, convinces me that all our blight here is produced, in fact, by the hot sun in summer, though not generally developed to the eye until severe cold occurs in winter, or perhaps not until the ensuing spring or summer. That cold may produce similar effects elsewhere, is perhaps both natural and probable; but I have never seen it.

The PROXIMATE CAUSE, then, of blight here, both in the apple and the pear, is the effects of the hot sun upon the unprotected trunk and branches of the tree, while the return sap is in an unnatural condition of plethora. It is not unlike, either in its predisposing or proximate causes, to the disease familiarly known in the west by the name of sun-stroke, in the human system.

The PREDISPOSING CAUSES are, *first*, a general hereditary debility of those kinds of trees that have been through several generations, propagated without bringing them in contact with the vital energies of healthful seedling roots; and toward the same results the apple is fast tending in these parts, and probably wherever the same absurd mode of grafting is practiced upon a rich soil, and under a hot sun.

Second, the interference in pruning, in interrupting the general healthful functions of the tree, and particularly in violently disturbing the natural and necessary equilibrium between the capacities of the tree for transferring its ascending and descend-

ing currents of sap; this latter point deserves to be presented more in detail, both in its philosophy and in the nature and extent of diseases it is liable to produce, both in the bark and in the trunk, and finally in the top. But I cannot tax your patience or that of your readers further on the subject at present. Meantime, I apprehend that it will be found, at last, that the term "fire-blight," or "frozen sap-blight," is not a specific name, but only a general term, to signify analogous modes of disease, arising from the same predisposing causes, but developed by a variety of proximate causes, like fever in the human subject; and that while we may postpone the catastrophe in single cases by attention to soil and culture, we shall never get rid of the constitutional tendency and latent debility of the predisposing causes, until we study the nature of trees more, and apply the *nature* of the knife and the saw less, until, in a word, both in grafting and pruning, we learn how to interfere with nature as little as possible. I went last winter to see an apple orchard some forty miles distant, belonging to a man too old and too lazy to touch it with a knife or saw. At first view, it looked horribly. The trees were all bushes, or rather thickets, having all the shoots of fifteen or twenty years' growth standing on and around the trunk, or what was originally intended for the trunk of the tree. Yet this orchard was overloaded, in all its tangled branches and clusters of sprouts, last year with fine fruit; and is the only one I have ever seen in the state, of the same age, that had not a single tree affected with the sun-stroke, as I have called it, or frozen sap-blight, if you please.

Doubtless, in some cases, these several causes produce their effects—each without the aid of the other; but so far as I have noticed, where the three coexist, speedy and

premature death, especially on a rich soil and with high culture, is absolutely certain.

The general remedies will be plain to all.

The blight on the trunk of the cherry tree, arising from similar principles, is, however, in these parts, in one respect entirely peculiar, and can be explained only by referring to the cause which produces the peculiarity; which, if you and your readers have patience, I shall do in some future number. Meantime, I shall hope to

see your strictures freely and fully presented upon what I have already written.

Respectfully yours, J. B. TURNER.

Illinois College, August 1, 1848.

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[We commend the foregoing most interesting article to the careful perusal of every reader interested in the culture of fruit trees. Want of space compels us to postpone any comments till our next number. ED.]

THE COL. WILDER RASPBERRY.

BY DR. W. D. BRINCKLE, PHILADELPHIA.

[WE are much indebted to our correspondent for an opportunity of first publishing the figure and description of the following valuable acquisition. We have seen the original plant, and from our own judgment, and the high opinion we hear expressed of this fruit by some of the best judges in Philadelphia, we think we may congratulate Dr. BRINCKLE, who is one of the most zealous devotees of pomology in Philadelphia, on having originated a new *yellow* raspberry, far superior to any existing varieties of its class. ED.]

My Dear Sir—In compliance with a promise made some time ago, I send you, for the Horticulturist, a drawing and description of the *Col. Wilder Raspberry*. The drawing was taken by Mr. HOFFY.



Fig. 22.—*Col. Wilder Raspberry.*

In the spring of 1846 I planted the seed in honor of my highly valued friend, the president of the Massachusetts Horticultural Society. It was planted within two feet of its parent, the *Fastolff*. The winter of 1846 and '47, killed the *Fastolff* to within a

foot and a half of the ground, while the Col. Wilder was uninjured, and bore fruit in 1847 of good size. During the summer of 1847 it sent up a very stout shoot, from which, in the fall and winter, many cuttings were taken and sent to horticultural friends in various parts of the country. After taking off these cuttings from the top and branches, the plant was still eight feet high, and fruited, the present season, to its summit. The fruit commenced ripening on the 15th of June; and from that time it

continued to have ripe fruit, in abundance, till the first day of August, when the old wood was cut away. The original stool stands in my yard, on the west side of a board fence, six feet, four inches high. This variety is uncommonly vigorous. Prickles white,—leaf, much crimped,—fruit as large as the Fastolf, roundish, cream coloured, semi-transparent, glazed, with prominent pips. Flavor fine.

I remain, my dear sir, very sincerely,
yours, W. D. BRINCKLE.

THE ONONDAGA AND OTHER PEARS ON QUINCE STOCKS.

BY P. BARRY, ROCHESTER, N. Y.

IN your "Domestic Notices," of last month, it is stated by Mr. HENRY H. CRAPO, of New-Bedford, that he has succeeded badly with the Onondaga on quince stocks. I am surprised at this, inasmuch as it grows admirably with us, and in all the nurseries and gardens here, where it has been so worked. Failures, such as Mr. CRAPO's, occur frequently in the propagation of trees, and it is difficult to detect the real cause. We cannot yet say how *durable* it may be, or how it may *bear*; but certain it is, that, so far, it *grows well*. We have at the present moment, growing in the nurseries here, more than 1000 trees from 2½ to 4 feet in height, quite stout, and many of them well branched, the growth of the present season, on small quince stocks. Indeed, it grows better than *White Doyenne*, Bartlett, or Madeleine. Mr. Crapo must try farther. The first season that we worked the pear on quince stock, extensively, our Eeaster Beurres were a complete failure; they grew 10 or 12 inches, while others in the same row, and on same sort of stocks precisely, and worked on the same day, were 4 to 5 feet. We thought it

strange, as it grew so well on the quince in France; we tried again, and it grows well—not tall, but stout and bushy. So with *Seckel*; the first year we worked it on quince it failed; last year and this we have had as fine and as vigorous a growth as we ever have on pear stocks,* and so on, with many other kinds.

The *Osband's Summer*, or *Summer Virgalieu*, grows and bears well on the quince, and is one of our very best early pears,—superior, as we think, to the Bloodgood; certainly more beautiful, and as early—in our markets this season about the 6th of August.

The *Doyenne d'ete*, quite similar to the foregoing, but ripening two weeks later,—grows and bears exceedingly well on the quince. This is one of the finest pears of its season. The *Bloodgood*, *Dearborn's Seedling*, *Tyson*, *Buffum*, *Stevens' Genesee*, *Oswego Beurree*, all fine American pears; grow freely on the quince, and I have no doubt will bear well. We should have been able to speak more certainly on the

* The *Seckel* is one of those Mr. Rivers says requires double working. (Hort., vol. 2, page 70.)

latter point, but for the hail storm that visited us in May last, when trees were in blossom, and scarcely left us a single fruit of any kind. The *Rostiezer* grows on the quince as freely as a Jargonelle, and proves to be one of the finest summer pears.

Excepting *Beurre Bosc*, *Winter Nelis*, *Maria Louise*, *Gansell's Bergamot*, *Urbaniste*, *Flemish Beauty*, and *Dix*, we find all the most popular pears to grow freely when budded on vigorous, free growing quince stocks. The *Dix* will not grow more than six inches to a foot in one season, and the union is so imperfect that it cannot be permanent; but it double works admirably; in this way, it seems to grow stronger than on pear, and the fruit will probably be finer.

As to the nomenclature of the quince, there seems to be much diversity of opinion, and no very clear conceptions on the subject in any quarter. You state, in the last number of your journal, that the kind we cultivate here as the *Portugal*, is the apple quince. In this, I think you are mistaken. It may not be the *Portugal*, though it is cultivated by the French as that, and sold as that.

A neighbor of ours, a very careful and observing cultivator, has grown them side by side for the sake of comparison; and he says they are different, but the difference is not great.

The *Portugal* which we have long grown by budding—has, as you remark, longer leaves.

Among our importations from France, of what they call *Portugal*, we have obtained

a variety that appears to us perfectly distinct from any other. We send you a couple of specimens; one, the smaller, grown from a cutting this season, and the other last season. If they reach you in good order, you will see how completely distinct they are from the *Apple*, *Portugal*, or any of the common sorts. They are quite branchy; and every branch takes a perfectly upright direction, giving them a peculiarly dense and erect habit, so that the rows in the nursery look like rows of miniature Lombardy poplars. The leaves are small and more reflexed than those of any other. The contrast between them and the other sorts immediately strikes every one who sees them. This, undoubtedly, *is to be* the quince for stocks. It grows from cuttings as freely as willows. The rows of cuttings of this season, in our grounds, are uniform and full, while others beside them, treated similar in all respects, have lost a half and three-fourths. They grow more rapidly, too, than the others; and the pear seems to take better on them. Perhaps you may have seen it, or heard something of it. *LOUDON* had never seen this variety when he wrote—"the Quince is a low tree, with crooked stem and tortuous rambling branches." If it has not been named, I would suggest that it be called *Cydonia fastigiata*.

P. BARRY.

Rochester, N. Y., August 18th, 1848.

[The specimens of this variety of quince, sent us by Mr. B., had not arrived when this sheet went to press. Ed.]

REVIEW.

FLORE DES SERRE ET DES JARDINS DE L'EUROPE, 8vo., tome iv, A Gand, LOUIS VAN HOUTTE, Editeur. Jan. to July, 1848.

WE noticed, in a previous volume, this beautiful monthly periodical, published by M. VAN HOUTTE, at Ghent. Since that time, it has been enlarged, improved, and somewhat varied in character, and well deserves a second notice.

It is edited with ability by M. VAN HOUTTE, (himself one of the most skillful horticulturists on the continent,) assisted by eight distinguished botanists and cultivators, among whom are BROGNIART and A. DE CANDOLLE. It is issued monthly, in large octavo form; and each number contains *ten plates*, admirably coloured, besides smaller engravings, representing the habit of the plants, &c. &c. It is devoted, as its title implies, to a delineation of all the rarest and most beautiful plants newly introduced into Europe, with descriptions, embracing their history, botanical character, culture, and uses in domestic or rural economy.

The work resembles, in general character, that standard English serial, *Paxton's Magazine*; but we greatly prefer it, as being more correct in its plates. These, while they are beautifully executed, are more *truthful* portraits of the plants than those of Paxton, which are sometimes greatly exaggerated in size and colour. In short, to those who read French, (in which language the letter press is written,) this Flora may be recommended as being the best botanical and floricultural gallery of rare plants at present published.* M. VAN HOUTTE's celebrated garden, at Ghent, alone furnishes specimens of numerous new plants,

and the leading collections of Great Britain and the continent, are also put under contribution for its pages.

We shall briefly notice some of the plants figured in the late numbers before us, which may be most interesting to our readers.

Plumbago Larpenæ.—This is a fine representation of this new Leadwort. The flowers—a fine dark cobalt blue—are produced in innumerable clusters; and as the plant is one of those collected in the north of China by Mr. FORTUNE, there is little doubt that it will prove quite hardy in this country. It will be a superb plant for beds and masses in the flower garden.

Pæonia tenuifolia, fl. pl.—A very fine double variety, of the pretty fennel-leaved garden Pæony; well worthy of introduction into the United States. The flowers dark crimson.

Gloxinia Fyfiانا.—A beautiful hybrid variety, bearing upright flowers, pure white, with a rich, blue throat; very handsome.

Tricosanthes colubrina.—A singular cucurbitaceous plant, with fruit six feet long and two or three inches in diameter. It is a vine, and, when trained on a trellis, its pendant fruit, looking like long variegated serpents, and its curious and beautiful white fringed flowers, render it a very striking object. It is grown as easily as a melon in a rich warm border.

Achimenes grandiflora.—A beautiful acquisition to this pretty genus of Mexican greenhouse plants. It is a very distinct and attractive species, with large white flowers, whose throat is golden yellow, and corolla distinctly spotted with purple. It also possesses an agreeable odor.

Statice imbricata.—Exceedingly novel and beautiful; from the Canaries. It forms

* The subscription price is 36 francs. It may be ordered through any of the importing booksellers.

a tall herbaceous plant; the stems winged, (somewhat like *Ammobium alatum*,) and terminated by large corrymbis of exquisite pale blue blossoms. It is a green-house plant of rare beauty.

Brunsvigia Josephina.—A fine plate of this well known Cape of Good Hope exotic; one of the grandest of all bulbous plants,—the bulb growing as large as a man's head, and supporting a superb umbel of 50 or 60 flowers. M. VAN HOUTTE gives us the very agreeable news, that this bulb stands the winter in the open air, in Belgium, with only slight protection.

Camellia Wilderii, and *C. Mrs. Wilder*.—These two American seedlings, raised by the President of the Massachusetts Horticultural Society, are figured and very highly praised by M. VAN HOUTTE. The former, which is a clear light rose colour, is pronounced—"superior to most of the finest camellias that we possess." Of the latter, one of the editors says—"this is *perfection* in the fullest sense of the word among modern horticulturists. The imbrication is perfect; the petals extremely numerous, (90 to 100,) rounded at the circumference of the flower, and slightly ovate towards the centre; are pure white, but painted with two or three delicate lines of rose colour down the centre. The foliage is large, and of a fine rich green; and the shrub itself is remarkable for its vigor and fine habit."

Camellia General Lafayette, is another superb variety, originated by Mr. BOLL, florist, New-York. The flower is fine, the petals cupped, the colour deep rose, marked with broad band-like stripes of white down to centre of each petal.

Agalmyla staminea.—A Java plant, with brilliant scarlet blossoms, requiring the hot-house.

Fuchsia spectabilis.—A very large magnificent *Fuchsia* lately discovered in the Andes, and brought to Europe by M. Lobb, the botanical traveller. Dr. Hooker, who has bestowed on it the epithet of—"loveliest of the lovely," places it at the head of all *Fuchsias*. The flowers are very large, with a tube an inch and a half long, and the petals expanded, like those of the oleander. The colour is a brilliant red, the foliage large, and the habit of the plant vigorous.

The commercial florist and nurseryman, who wishes to keep himself informed of the most interesting novelties of the day, will find this monthly an invaluable assistance; with the advantage, too, that the Van Houtte Garden, at Ghent, will supply any of the new or rare plants that are described in the work itself.

As a beautiful example for the library or boudoir, of a richly illustrated foreign work, there are few more interesting to the amateur of plants than the *Flore des Serres*.

FOREIGN NOTICES.

NOTES FROM THE CONTINENT.—[We give some further extracts from an interesting letter, received from our foreign correspondent by the last steamer. Ed.]

* * * At Lausanne we saw a lawn, kept by the *scissors and broom*, by two women, who clipped some part of it every day. It was, of course, not large—perhaps an acre; but it looked like a piece of green velvet of the choicest pile. It was so short that it was almost difficult to seize in your

fingers a blade of grass, and so thick that you could not see the soil through it. * * *

In the neighborhood of Frankfort, we went to a German party in the country, at a fine English-like place, where, though in the evening, everything was done out of doors. We were received in a quiet secluded part of the grounds, beneath some immense trees, the lower branches of which were hung with pretty variegated paper lanterns. Half a dozen tables stood about, with their different tea

equipages—each table having one or more servants, who poured out the tea; but the ladies of the house themselves handed it to the guests. The evening was passed under these illuminated trees, or near some pretty fountains, or wandering about the dusky walks. At 10 o'clock we went in to a table, laid with a fine service of silver and glass, and commenced a *sit-down-supper* with a large dish of green peas, *having a vase of cold butter in the centre*. After this came roast venison, larded over most curiously with figures of the chase, the game, salads, and the *sweets*. * * *

From Ems back to Coblenz, and so down the rest of the Rhine; for no one goes beyond Coblenz. And here, let me say, in my opinion, the Rhine does not by any means equal the Hudson. It did not strike me that there was a hill 500 feet high except perhaps the Seven mountains, which may be 800 feet. Most of the castles are like excessively *old wine*; you can't tell what to make of them! I believe you give me wine, when I drink some invisible green, pale, tasteless stuff, because I believe you. We believe the guide books, pointing out this and that castle; but I assure you, they are in many, and I might say, in most instances, so dilapidated that they resemble nothing but a perpendicular rock, with some loose blocks of stone lying about it. There are, however, three or four very interesting ones. The best is Stözenfels, belonging to the king of Prussia; but it is a restoration, at an enormous expense, upon the old foundation. It is really admirable—far surpassing Warwick castle—especially as it is furnished entirely in the antique style. There is also another restoration in progress, belonging to the crown prince of Prussia.

To *Americans*, the scenery upon the Rhine is *not* grand. To the English, its principal varnishers, who have no grand scenery at home, I can easily imagine its charms; as also to the Dutch, Belgians, Germans, &c., whose scenery is even tamer than England. But I am sure all Americans who know the river are disappointed. I certainly was; and ———, whose recollections of the Rhine were before a more recent familiarity with the bolder parts of the Hudson, was grievously so. * * *

* * * I was much pleased with Holland; though from the steeple at Utrecht, you can see the whole of it. The Hague is a most charming place. Though the residence of the king and court, it does not seem a town, but rather, a great, clean, shady New-England village; like the best parts of New-Haven or Northampton. I mean, more particularly, in the immense elms that shade every street, bordered on one side by the canal. The court here is a very quiet one; and there is not the least show or parade, even in or near the palace. We were in a hotel opposite the royal park, with merely a gravel drive between us and 200 or 300 deer grazing under the finest trees; they were separated from us by an invisible *ha-ha* fence. The "forest" at the Hague quite realizes my ideal of a forest: no underwood, but some 200 acres of immense timber trees, with long perspective views, crossed and threaded by innumerable alleys and walks, as well as lakes, rivers and islands; but never allowing the sun to come in, except in those

lickering lights which have such a delightful effect in woodland scenery. Through the whole forest run several grand avenues, 50 feet broad and 3 miles long, with giant trees, whose branches meet some 60 feet over your head. Imagine every avenue, walk, glade, and alley filled on Sunday, from 2 to 8 P. M., with some 20,000 well dressed people—children innumerable, and the whole enlivened by the music of several fine military bands; all the walks nicely gravelled, the water filled with swans and aquatic birds, everybody animated, well dressed, and apparently well bred, and you will have an idea of one of the gayest sights I ever saw. * * *

Let me tell you, also, of *Booth's nursery*, in Holstein, one of the Danish provinces. The head gardener, who is English, told me that it is the largest in extent, means, &c., in the world, and gave me the following particulars: It consists of 180 acres, and requires an average of 130 men, and 20 women, to cultivate it. In the packing season 80 packers are employed, day and night, at wages averaging 9s. sterling per week. The average profit for the last 30 years has been £3,000 (\$15,000,) though for 12 years the elder Mr. BOOTH netted £10,000 per annum for the sale of *dahlia's* alone. To the cultivation of this flower *eleven acres* are still devoted, and they have some 2000 varieties. The collection of Orchids is said to be the finest in the world. I saw some 20 or more sorts of these rare air-plants, each of which sell freely (principally to Russians,) for 60 guineas each. There are 22 hot and green-houses; and I have never seen any in such perfect order. They are from 50 to 150 feet long. The collection of fruit is not large; but of Orchids they have 2000 varieties, and the collection of ornamental trees is enormous. See, for example, in the following genera:

Of *Acers*—47 species and varieties.

<i>Alnus</i> —19	"	"
<i>Andromeda</i> —26	"	"
<i>Betula</i> —30	"	"
<i>Clematis</i> —28	"	"
<i>Crategus</i> —60	"	"
<i>Fraxinus</i> —45	"	"
<i>Quercus</i> —85	"	"
<i>Pinus</i> —71	"	"
<i>Abies</i> —15	"	"
<i>Picea</i> —23	"	"
<i>Taxus</i> —15	"	"
<i>Thuya</i> —14	"	"

Strange to say, these evergreens are nearly all grown in pots; as nothing but the Norway and Balsam fir will withstand their climate. Among trees and shrubs rare to me, I noticed a *weeping birch*, peculiar to Germany. It had *descending* shoots 32 feet long. The branches hang as *perpendicularly* downward as those of either the *Sophora pendula* or the common weeping willow, and are quite as delicate and pensive as the latter. That pretty vine, *Tropeolum pentaphyllum* is said to be perfectly hardy here, where the Cedar of Lebanon will not stand the winter. *Cupressus disticha*, an evergreen variety; but in colour and habit precisely like our deciduous cypress, and with a rather larger leaf—is also perfectly hardy; though the deciduous cypress itself has to be protected. There was a weeping oak on the lawn rather pecu-

lar; it resembled, in the rigid droop of its branches, the weeping ash, with a leaf much like that of our *pin oak*. The evergreen cypress would be a great acquisition to American pleasure grounds; it is of such a bright, cheerful green. Peaches will not stand in this part of Denmark; and pears and apples suffer much from our *fire blight*! The gardener said he had lost a great many wall pear trees in England from the same disease, and he was convinced that the only remedy is *severe* root-pruning to prevent vigorous growth. Pray tell this to that unfortunate pear cultivator. —

20th July.—We spent yesterday at Potsdam. This deserted-looking city is, as you well know, interesting from its connection with **FREDERICK THE GREAT**. There are six immense palaces, within half an hour of each other, containing from 300 to 400 state rooms, filled, like all other palaces, with pictures, statuary, &c., and some rooms 100 ft. long, are entirely covered with mirrors and gilding. This palace-seeing becomes, after ten months' practice, rather heavy work. * * * Prussia is perfectly flat and sandy; and the grounds at all these palaces (for they have mostly 100 or 200 acres each,) are kept at great expense by watering. Upon the lawn in front of the terrace, at Sans Souci, was a clump, consisting of Indian corn, Indian shot (*canna*), and mullen in flower, and in another place a large mass of rhubarb; all these grown here for ornament! There is plenty of "snap dragon" in Prussia. At Sans Souci, Frederick's favorite residence, we saw 600 orange trees in boxes 180 years old,—especial pets of the great monarch, and originally belonging to his grandfather. * * * Yours, very truly, *H. W. S.*
Berlin, July, 18, 1848.

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POMOLOGICAL NOTES—*A. J. Downing, Esq.*—I have a seedling pear which fruited last autumn and ripened in April. It is from Easter Beurre. Only two plants came up; and one of them will, I think, prove one of the hardiest and best late sorts we have. So much for chance! The pears, *Susette de Bavay*, *Josephine de Malines*, and *Beurre Bretonneau*, originated by the late Major **ESPERIN**, are worthy of especial notice. The first is my favorite; it forms such a handsome pyramid, and is so hardy and excellent. If I was in your country, I should plant 10 acres of that sort alone.

A great deal was said last year in France about *Bigarreau Monstreux de Mezel* cherry. I have a very strong belief that it is our favorite *Bigarreau gros cœur*. The trees of both sorts are growing side by side here, and are *exactly* alike. Wishing to make sure of having it correct, I ordered it from three of the continental nurseries. All are alike; and I believe all are *gros cœur*.

May, here, was hot and dry. June and July, cool, showery, pleasant and growing weather. August has commenced in like manner,—weather very pleasant, but not hot enough for fruit. Pears and plums are a very short crop. Wall-fruit, i. e., apricots, peaches, &c., abundant. I am, dear sir, yours, very truly, *Thos. Rivers*. *Nurseries, Sawbridgeworth, Herts., England, August 1, 1848.*

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GERMAN POMOLOGY AND HORTICULTURE.—[We

extract from a letter lately received from a German horticulturist, residing on the shores of the Baltic, the following items, that may interest some of our readers. Ed.] * * * Looking round for some German pomological works, which might be of use to you, I found in the list prefixed to your own work on "Fruit Trees," that you are already in possession of the most valuable one, so far as regards kernel fruits, viz., that of **DR. DIEL**. There are scarcely to be found any descriptions of apple and pear trees upon which more confidence may be placed. **DR. DIEL** was a zealous amateur of the culture of fruit trees; a man of great knowledge and the strictest veracity. All his descriptions are the results of personal observation. His experimental garden was situated in the beautiful valley of the river Lahn, in the duchy of Nassau, and was highly favored by the soil and climate. His complete work consists of 27 small volumes; and, though it is far from being exempt from errors, **DR. DIEL**'s statements are still the first authority in our country. You will find in this book, for the most part, an accurate description of the growth and habit of the trees, their shoots, foliage, &c., which I beg to remark with reference to an article of **MR. PHENIX**, in your *Horticulturist* of 1847, p. 355. Our best pomological authors will not neglect to add the necessary remarks about the vegetation of the tree, which in many cases is very characteristic. There is an abundance of pomological books in German literature; but the greatest number of authors have mixed their own observations with those borrowed from others, and in consequence thereof, are not to be relied on with certainty. I have, therefore, limited myself to sending you the following:—

Liegel's Anleitung Zur Kenntrick der Pflaumen.

Liegel's Anweisung mil welchen sorten verschiedene obstbaum-unlagen besetzt werden sollen.

Liegel's Übersicht der Pflaumen.

Metzer, die Kernobstsorten des südlichen Deutschlands.

This latter work is a description of the kernel fruit trees, cultivated in the southern parts of Germany, examined by a wandering [travelling] society, which makes excursions through the country for that purpose, identifying the dubious sorts, and taking notice of the false or provincial names under which the trees are known in their district. The result of these investigations proves that a deplorable confusion exists everywhere; and that a great number of contradictory names are applied to one and the same kind.

Hoping that you will find some notices in these books that will interest you, I shall not fail to send you new publications of a similar kind as soon as they appear, provided they are not compiled from works already known to you.

You make, in the *Horticulturist*, page 24, a remark respecting the *Arbor Vitæ* which coincides with my observations. I have been in the habit of receiving American seeds from Messrs. **THORBURN**, from whom I once received a quantity of *Thuya* seeds, under the name of *T. occidentalis*; and another time, under that of *T. Americana*. The latter name is not mentioned in *London's Arboretum*. Still, two varieties can clearly be distin-

guished in my grounds,—one of them having precisely the habit described by you. Truly and respectfully yours, *H. B. Lubeck, Free Hanse Town, June, 1848.*

THE LONDON HORTICULTURAL EXHIBITIONS.—We see, by the English gardening journals, that the great July exhibition of the London Horticultural Society, was more numerously attended than any upon record, no less than 13,823 visitors having been admitted by tickets.

When we state in addition that these tickets were sold at either 3s. 6d. or 5s sterling each, (say at an average of \$1,) we place before our readers the means of judging, not only of the interest which the English public feel in horticulture, but also how much the society is patronised by the rank and fashion of England, for it is evident from the charge that a large part of this concourse of visitors must have been of the wealthiest classes.

These magnificent fetes are indeed among the great shows of London. They are held in the open air, in the Society's garden at Chiswick, in the suburbs of London. The flowers and fruit are arrayed in tasteful tents disposed on the lawn in various parts of the ground; several bands add the charm of music to the entertainment, and various members of the royal family and nobility, with thousands of ladies in tasteful costume, give gaiety and brilliancy to the striking scene.

The London Horticultural Society is the richest corporation of the kind in the world. Its assets are at present estimated at over £48,000, with a debt of a little more than £9000. Its income for the past year was about £6,091, (say \$30,000.) and its expenses £5,294. It publishes quarterly *Transactions*, including interesting original communications on horticulture, and maintains one or two botanical travellers, who are constantly in foreign countries searching for rare plants to enrich its garden. These rare plants are propagated and distributed to such members of the society as may desire them, and some idea may be gathered of the extent of this distribution by the following extract, which we make from the report of the garden committee for the last year :

"The distribution of plants, packages of seeds, and parcels of cuttings from the garden has been as follows :

	Plants.	Seeds.	Cuttings.
1847 '48—To members, ..	6,071	44,041	3,085
To foreign countries, correspondents, &c.,	1,256	6,848	350
To her majesty's colonies,	116	519	86
Total,	7,443	51,408	3,521

"The garden committee have directed Mr. MUNROE in making this distribution, to keep in view as far as possible the principle of *not* propagating plants that are readily procurable at the nurseries, and also that applications are to be complied with according to the order in which they are made."

In addition to this, "all those Fellows of the Society who may be desirous of determining the names and qualities of fruits, are supplied with specimens of such varieties as the garden of the

Society produces, on application to the Secretary. Not more than two specimens of any sort are sent, and the expense of the package and carriage is charged to the Fellows making application for them. If a second supply of the same fruits should be required, it is not furnished gratuitously."

We notice that "sixty-eight dozens of pears and sixty-one dozens of apples," named specimens, were sent out in compliance with the above regulation last season.

Most of our readers are familiar with the service which this society has rendered to pomology, by its Descriptive Catalogue of Fruits—the result of comparisons of thousands of varieties. A feature scarcely less valuable has been introduced lately in its management. This is "the trial of every experiment, however ludicrous, that has been so brought forward as to excite public attention ; the object being to enable the council to publish an official report of its fallacy, instead of denouncing it without a trial, which would rather strengthen than overturn the sinister object of schemes, and of reporting its success if it turn out well, upon an authority that cannot be questioned—the fair trial in their own garden."

The education of gardeners, practically and theoretically, is another of the most useful plans carried out by the Society. Practically, they are instructed in the labors of the garden itself, (which, in turn, thus has its operations performed at diminished expense,) and theoretically, by lessons on various subjects in horticulture, delivered by Professor LINDLEY, and other competent persons. The gardeners have a reading room and a library of more than 400 volumes.

We have given these few details in order to direct public attention to the importance of the labors of a horticultural society of the means and ability for good which the London society possesses. While it is evident that no one of our cities can, for some time to come, hope to support such a society, it is no less clear to our minds that such an institution, liberally supported by the United States government, would be productive of great public good in every part of the Union.

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NEW FOOD FOR FLOWERS.—Last spring I planted three dozen dahlias, and, on the same day, my neighbor, Mr. Neill, did the same. Our gardens being only separated by a light iron railing, we could watch what attention each paid his favorite plants, and I can safely affirm that the golden fruit in the fabled garden of Hesperides, was not more unceasingly watched, watered and weeded, than were his, Mr. Neill's, flower garden and mine. I remarked that his dahlias, and those in the surrounding parterres, were dwarfish, discoloured, and broken in the beautiful contour such flowers should preserve, when approaching perfection. They seemed to droop, while mine rose to a towering altitude, casting disdainful glances of superiority on those of their class in my neighbor's garden, as well as on the lowlier inmates of my own. My friend was surprised at my success, and continued his floral labors with more zeal, but with little

better results. My long acquaintance with flax led me to observe the effects it had upon the waters in which it was submerged, preparatory to breaking and scutching; I found that animal life soon became extinct, whether in the running brook, or in the stagnant pond if flax had been steeped there. Fish or insects could sooner exist in a vat of boiling liquid than in the steep water of flax. The knowledge of this fact, together with the recollection of the good effects of steep water on grass land, induced me to supply the roots of my dahlias with small quantities of the steep water; and my anticipations that benefit would be derived from it were more than realized, as your readers are already aware. I also applied flax water for the destruction of green fly, which continually infested my plants, and after an ablution of this water, I was glad to find they soon disappeared. In conclusion I may mention, that in order that this manure, which I have proved to be beneficial to Hydrangeas, Geraniums, Roses, &c., may be extensively tried, and as I am certain to have flax steep water during the summer quarter, I shall be happy to accommodate any gentleman who may wish to try its effects with a supply. *J. Hill Dickson, British Flax Scutching Mills. Gard. Chron.*

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DISBUDDING.—In the case of several of our cultivated fruit trees, experience has abundantly proved that the removal of shoots at an early stage of their growth (which from the adoption of a system of training, or a tendency in the tree to excessive luxuriance, are deemed superfluous) is both advantageous to the health of the tree and favorable to the production of handsome fruit. Pruning may effect the result desired, but it is a violent remedy, although necessary in some degree. Disbudding, properly speaking, is the art of preventing the development of useless buds at the expense of those which should be preserved, as it must be more advantageous to check an unnecessary shoot at an early stage than to wait until it has exhausted the tree of a greater or less quantity of sap; as it is probable that a proportion of roots is directly connected with vigorous shoots, it follows that derangement in the distribution of the sap ensues from their removal at the period of their full development. It is, then, generally advisable not to wait until a badly placed shoot is developed, but to suppress it early. With apples and pears peculiar judgment and discrimination are necessary; stopping should systematically be practiced. The excess of shoots produced by peach trees invites the practice we recommend. The same attention should be directed to vines. In our flower gardens much unnecessary growth may be prevented. Roses, for example, if judiciously disbudded, not only bloom better, but form finer and more vigorous plants. In fine, we advise a daily inspection of the sorts of trees we have alluded to. *Ibid.*

JAPAN LILIES IN THE OPEN GROUND.—At the Rooms of the Hort. Soc. in Regent-street, Sept. 7, two plants of *Lilium lancifolium rubrum*, or *speciosum*, from Mr. Groom, of Clapham Rise, each a *single stem, bearing upwards of forty flower buds*. "My object in exhibiting them," wrote Mr. Groom, "is to show how well this variety of lily grows in the open ground; and as they are perhaps the finest specimens of single stems ever produced, a short account of their culture may possibly not be uninteresting:—

"A bed 4 feet wide, of common garden soil, was prepared about the end of November, 1845, by being dug and well broken with a fork, but without any manure, which I do not consider desirable in the cultivation of the lily. After the bed was raked level, the bulbs were planted on the surface 15 inches asunder each way, spreading the fibres regularly out. They were then covered 3½ inches deep from the top of the bulbs with a light sandy soil, composed of sand and fine mould in equal proportions; the bed was then raked level and left without further care, and it was *not* protected from frost or bad weather in any way; last autumn, after the stems were quite dead, the top soil was removed down to the bulbs, but without disturbing them, and fresh sandy soil was laid over them to the same depth as before. In this bed they flowered well last year, but were sadly injured by the hail storm of the first of August—so much so, that I feared I should have but a very indifferent display of them this season; they have, however, recovered their strength, and are now in luxuriant growth. It is from this bed I have taken the two specimens now forwarded, which were taken up and potted in the end of last week.

"I have now established the fact of this variety being equally hardy with the other sorts, and from the vigorous growth and fine colour of the foliage, it is clear it succeeds better in the open ground than when kept in a close green-house, fully illustrating the advantages to be derived from a free circulation of air in our glass-houses.

"I have grown the other kinds of Japan lilies in the open air with much success for some years, and have now many thousand flowers just bursting into beauty.

"I cannot help calling attention to this plant for ornamenting gardens and pleasure grounds, flowering as it does without any trouble, in the open borders at this period of the year, when good flowers are so much needed. It is also a most desirable plant in pots for decorating the conservatory, being very fragrant as well as beautiful." *Journal London Hort. Society.*

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NEW FRUITS FROM SYRIA ABOUT TO BE INTRODUCED.—A Knightian medal having been transmitted to John Barker, Esq., of Suædia, for having introduced the Stanwick Nectarine, named at p. 272 of the first volume of our Journal, and which is much the finest nectarine in cultivation in this

country, letters of acknowledgment were addressed by that gentleman to the vice-secretary, from which the following very interesting extracts have been made:—

I beg leave to make the Society my humble acknowledgments for the honor which they have been pleased to confer on me, and which I regard as an earnest of the distinguished favor I presume to hope to receive at their hands, when I shall have introduced into England twenty varieties of

1. A new species called "*The Sweet-kernelled Peach*," among which are six varieties of the nectarine, all of equal, and some of superior value to the "*Stanwick Nectarine*."

2. A new species of the apricot with a sweet kernel, called "*Sheker Para*" (bit of sugar) of Isphahan.

3. "*The large sweet White Mulberry of Iran*," from which a syrup is extracted, hardly to be distinguished from syrup made from sugar. It is highly extolled by Sir Alexander Burnes in his "*Travels in Bokhara*."

4. A plum, with a sweet kernel, called "*Aloo Bokhara*," which is also celebrated by the same traveller. When ripe, its stone is in view through its skin.

5. The famous "*Pomegranate of Tabriz*," without seed, weighing from 50 to 60 ounces.

6. The still more renowned "*Quince*" of most parts of Persia of the same size; which ripens on the tree or in the store, losing all its austerity, and eaten at the dessert like a soft ripe pear.

This wonderful production of nature, and the "*Pomegranate of Tabriz*," are yearly forwarded in presents by caravan to Bagdad.

The Pomegranate is not eaten as are the common sorts, but is squeezed into a goblet, and drunk off like a draught of sherbet; and the highly perfumed odor of the "*Quince*" is such, in oriental exaggeration, as that, when there is a single ripe specimen of the fruit in a caravan, every one who accompanies it is conscious of its presence.

In bringing under the notice of the Horticultural Society the foregoing statement, be pleased, sir, to say that I have now in Persia, on his travels, my eldest son. Mr. Wm. Burckhardt Barker, who is using his best endeavors to enable me to procure scions of such of the celebrated fruits of Iran as I have failed in obtaining; and who, should his father perish before they are introduced into England, will certainly carry out such of my plans as may be then incomplete.

I am to-day packing, to be forwarded to my son-in-law, Mr. Warmington, 100 small Seedling Mulberries, budded with "*The large White Sweet Mulberry of Isphahan*."

At the same time will be forwarded to that gentleman 500 specimens of "*The Dwarf Apple of Armenia*." They are all much past the age of puberty, though only 18 inches high. I received them two years ago from Armenia, and they do not appear to have grown at all. They increase slowly in thickness. I have often seen them planted in pots and cases on the terraces in the city of Aleppo, of 40 and 50 years' growth, never exceeding 2 feet in height, nor in the thickness of their stems that of your forefinger, without their even having

been pruned. To test the fact that their diminutiveness was not caused by their being always kept in pots and boxes, I planted out three of full 15 years' growth, and after keeping them 18 years in the open ground, found they had made no perceptible progress. I remarked that they bear best when their roots are cramped. They are very easily propagated, as they make abundant offsets, and take remarkably well from cuttings. Among the trees now sent, there are 17 which were made from cuttings two years ago; and 10, budded, at the same time with the Ribston Pippin, and other sorts. *John Barker. Journal Lond. Hort. Soc.*

BLACK PRINCE HAMBURGH GRAPE.—I have desired my gardener to send you a bunch of a seedling vine, I raised from a berry of what is usually called the Black Hamburg Grape, but I believe it really to be what Speechley describes as the Red Hamburg, or Warner Grape, the berry of which is black when properly ripened. The cross was obtained by impregnation with the pollen of the "*Black Prince*," which I consider, after more than forty years' experience, to be one of the best grapes we have—not of the perfumed kind. The only defect I find in the Black prince is that the berries grow too much crowded, and require so much thinning.

I therefore wedded it to the Hamburg, with a view of obtaining a more loose open bunch, with the vinous acidity and richness of the Black Prince. This double object, I think, I have obtained. The seedling plants, for I raised several of the same cross, grew the first year in pots, with artificial heat, but were then turned out into the open ground without being trained to a wall. Here they remained, and the annual shoots cut down to one of two eyes, till I found the end of the summer shoots and the cultivated appearance of the leaves began to throw out tendrils with a few flowers. Cuttings were then taken from the flowering end of the shoots, and planted against a south wall. They came into bearing soon after this, and one or two of the most promising were two years ago planted in my vinery. But the wood produced, till this year, was small; now it is become more vigorous and strong. It ripens earlier than the Hamburg, and colours with less heat and light. The plant from which I gathered the bunch you will receive was planted at the east end of a lean-to-roofed house, and only got a little morning sun, and that but for a short period, owing to the shade of a large willow tree. It had no top sun light from the roof glass, being under the shade of a rafter vine. You can therefore not judge what the flavor will be under these disadvantages. I expect the bunch and berry will be double its present size when trained under the roof glass, and the wood becomes strong.

We have had the coldest and most cloudy season I ever remember for the vines on the open walls. Still I think my new seedling varieties will ripen, if we have no severe frosts before the

end of the month. I have named the new variety the "Black Prince Hamburgh." *John Williams. Pitmaston, Oct. 13, 1847.*

NOTE BY MR. THOMPSON.—The grape in question is a seedling, raised between the Black Hamburgh, which was the female parent, and the Black Prince.

The bunch weighed 1 lb. 3 oz. It was loosely formed, with long shoulders; and long, rather slender, pedicles. The berries are oval, being

about nine-tenths of an inch in diameter from the insertion of the stalk to the opposite end; and eight-tenths in the transverse direction. The colour is a blue black; in this respect resembling the Black Prince more than its female parent. The juice is more purple than that of the Hamburgh, and is sugary and rich. Seeds, two or three in each berry. The variety deserves to be propagated. *Journal London Hort. Society. Oct. 21, 1847.*

DOMESTIC NOTICES.

GREAT NATIONAL CONVENTION OF FRUIT GROWERS.—It is proposed to hold a central convention of fruit growers and pomologists in the city of New-York, during the great fair of the American Institute.

The Institute having kindly offered to aid in carrying out said views, the convention will hold its sessions at Judson's Hotel, No. 61 Broadway, New-York, commencing Tuesday, the 10th of October, at 10 o'clock, A. M.

Among the objects to be proposed at this convention, are the following:

To compare fruits from various sources and localities, with a view of arriving at correct conclusions as to their merits, and to settle doubtful points respecting them.

To assist in determining the synonyms, by which the same fruit is known in different parts of the country.

To compare opinions respecting the value of the numerous varieties already in cultivation, and to endeavor to abridge by general consent the long catalogue of indifferent or worthless sorts at the present time propagated by nurserymen and fruit growers.

To elicit and disseminate pomological information, and to maintain a cordial spirit of intercourse among horticulturists.

In order to increase, as much as possible, the interest of the convention, the delegates are requested to bring with them. (carefully packed and labelled so as to present them in good order,) specimens of all fruits grown in their vicinity that may be worthy of notice, together with a small branch and leaves of each variety if possible.

In localities where any well known old varieties flourish particularly well, specimens are desired, accompanied with memoranda respecting the soil upon which they grew, and their culture.

Every contributor is respectfully requested to make a list of his specimens and present the same with his fruits, in order that a report of all the varieties entered may be submitted to the convention as soon as possible after its organization.

The undersigned, in behalf of the societies they represent, respectfully solicit *delegations* from all horticultural and agricultural societies of our country, and of such number of persons as each society may deem expedient to send.

Societies will please transmit, at an early day, a list of the delegates they have appointed, to the corresponding secretary of the American Institute, T. B. Wakeman, Esq., New-York. *Marshall P. Wilder, Samuel Walker, Ebenezer Wight*—Committee of the Massachusetts Horticultural Society. *Thomas Hancock, Dr. Wm. D. Brinckle, Dr. Thomas M. Ewen*—Committee of the Pennsylvania Horticultural Society. *Philip Schwyler, Dr. R. T. Underhill, Chas. Henry Hall*—Committee of the Board of Agriculture of the American Institute. *July 23th, 1848.*

[We publish the foregoing circular of the pomological convention for the purpose of bringing the subject before the public generally, though copies of it have, we understand, already been sent to all the horticultural societies in the country. We again beg leave to urge the attention of the horticultural societies to the importance of sending only persons skilful and experienced, (either as pomologists, fruit growers or nurserymen,) as delegates to this convention. It will, no doubt, be the most interesting and important assemblage of the kind ever held in the country. *Ed.*]

THE NEW-YORK STATE AGRICULTURAL FAIR.—Unusual preparations have, we learn, been made this season for the approaching Fair of the State Agricultural Society, which is to come off at Buffalo on the 5th, 6th and 7th days of September. The Buffalo Horticultural Society, backed by all the active intelligence of the amateur and professional horticulturists of the western part of the State, will no doubt lend their aid to render the horticultural department of the show worthy of the occasion. When such zealous devotees of the art as Professor COPPOCK, the president of the Buffalo Horticultural Society, L. F. ALLEN, Esq., the president of the State Agricultural Society, COL. HODGE, &c., undertake the management of a Fair of this kind, it can scarcely fail to be highly interesting.

The *Pomological Convention*, which is to be held at Buffalo in connection with the fair, will, we understand, be largely attended by horticulturists from various parts of the country, and will no doubt be an assemblage of more than ordinary interest. It convenes on Friday the 1st of September, at 10 o'clock.

MONTREAL HORTICULTURAL SOCIETY.—We observe, with pleasure, by the accounts of the exhibitions of this society, that a very lively interest in gardening is manifested in and about Montreal. The exhibition of June 23, was a very successful one. Among novelties were a fine show of ranunculus, from the garden of G. DESBARATS, Esq. The first prize for roses, fifty varieties, was awarded to Mr. TURNER. The finest strawberries shown were Ross Phoenix, from the garden of Jos. SAVAGE, Esq. The show of forced fruits, melons, grapes, nectarines, &c., was exceedingly good.

NEW-HAVEN HORT. SOCIETY.—The secretary of this society desires us to say, that delegates from horticultural or agricultural societies throughout the country, (properly certified by their respective societies,) will be waited upon and cordially received by a committee appointed for that purpose, at their next annual fair, Sept. 26th, 27th and 28th, to be held at the State House, New-Haven.

HORTICULTURAL EXHIBITIONS THIS MONTH.—New-York State, at Buffalo, on the 5th, 6th and 7th; Albany and Rensselaer, at Albany, on the 14th and 15th; Massachusetts, at Boston, on the 19th, 20th and 21st; Pennsylvania, at Philadelphia, on the 20th, 21st and 22d; and New Jersey, at Burlington, on the same days. [Gentlemen can visit both these exhibitions on the same day, the two places being at only one hours distance, by steamboat or railway.] New Haven county, at New Haven, on the 26th, 27th and 28th.

ALBANY AND RENSSELAER HORTICULTURAL SOCIETY.—At a meeting of the executive committee of the above society, August 22, it was resolved that the days of annual exhibition be Thursday and Friday the 14th and 15th of September.

The following gentlemen were selected to represent the society at the Pomological Convention to be held in New-York in October, viz:—Joel Rathbone, V. P. Douw, B. Kirtland, Herman Wendell, Luther Tucker, J. M. Ward and James Wilson.

The following to represent the society at the annual exhibition of the Massachusetts Horticultural Society, viz:—A. J. Parker, E. P. Prentice, J. McD. McIntyre, John B. Gale, Wm. Newcomb and George Gould; and the following to represent the society at Pennsylvania and New Jersey Horticultural Society annual exhibitions, viz:—V. P. Douw, D. T. Vail, Herman Wendell, Amos Briggs, J. M. Ward and E. Emmons.

THE WILEY STRAWBERRY.—In the July number of your journal it is remarked that this variety should properly be called "*Wiley*." This is a mistake. It is an old variety, originally brought here from New-York, the name lost, and again returned to you with the name of a lady of this place, instrumental in its dissemination. (See Albany Cultivator, vol. 3d, new series, p. 285.) The lady's name is most distinctly *Wiley*. It is singular, as this variety has been fruited by many pomologists at the east, that it has not been identified with some previously known variety. My belief is, that it is the Hudson of LONGWORTH, and Mr. ERNST once told me that he could see no difference

between them. I was much surprised at the Cincinnati strawberry committee's remarks upon it. With respect, *F. R. Elliott. Cleveland, O. Aug., 1843.*

[We are glad to know, correctly, the origin and orthography of the name "*Wiley*." We have fruited this strawberry, received both from Cleveland and Cincinnati for two years past, and consider it quite distinct from any variety well known here. Possibly it may be a new seedling, though taken from New-York to Cleveland. It is entirely distinct from the *Hudson* of Cincinnati—the berry less firm in texture, and less high flavored.]

While on this subject we may remark, that we have fruited this season the *Hudson* of Cincinnati, as sent to us by Mr. ERNST, of the latter place. Mr. LONGWORTH imagined, when our work on fruits was first published, that we were ignorant of the true *Hudson* strawberry, because we described it, (as indeed all authors before us had done,) as having a *neck*. Judge of our surprise, therefore, when Mr. ERNST's plants came into bearing in our soil, to find that with one half of the berries it was "*neck or nothing*"—they were the genuine old *Hudson* strawberry, familiar to us for 25 years. If, therefore, this strawberry has no neck at Cincinnati, we can only say that it has departed from its old established character, in emigrating to the west.

JAPAN LILIES.—You write me that your Japan lilies have stood the winter well in the open border. Mine also have done well out of doors, but do not grow so tall as those under glass. I exhibited in the society's rooms last Saturday, a seedling of the red sort, *seven feet high*, with 19 buds and flowers, 4 years old! The seedlings, though differing very little in the bloom, produce larger bulbs, stronger stems, and are more prolific in flowers than the original kinds. I have my camellia house filled with them now, and as they are all in bloom, it is quite a brilliant sight. Yours, *M. P. Wilder. Boston, July 27, 1843.*

THE CURCULIO.—A neighbor of mine has succeeded, as he thinks, in preventing the depredations of the curculio by hanging in his trees open mouthed jars of ship varnish, or gas tar. His trees were much affected with the insect heretofore, but this year are full of fruit and free from injury. *M. P. W. Ibid.*

MANURING THE SECKEL PEAR.—In your last number you remark that the Seckel pear requires more manure than most other varieties. I can give another illustration of the truth of this.

Three years ago I opened a trench, three feet wide and sixteen inches deep, around an old and rather exhausted Seckel pear tree, that had not for several years previous borne any fruit worth gathering, so small were they in size.

This circular trench was dug at the outside of the ball of the roots, that is about four feet from the trunk, thus leaving a ball of eight feet around the tree untouched. All the earth from this trench I carted away, and replaced it with one peck of bone dust, four cart loads of stable manure, and enough good fresh soil to fill up the trench.

The roots started very quickly into the fresh and

rich soil of the trench. The tree began to grow rapidly, and soon put on a healthy show of leaves, and the succeeding year I had the pleasure of gathering a large crop of pears, of full size and delicious flavor. This year the fruit is still larger—indeed a third larger than any Seckel pears that I have yet seen. I am so well satisfied with the result, that I shall trench and manure in like manner seven other bearing trees of the same kind, that produce fruit of moderate size only. Yours. *A Bucks County Reader. Pa. Aug., 1843.*

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THE PRATT PEAR.—*Dear Sir:* I have known this pear now two years, and am inclined to place it among the very best of American seedlings. Its good size and delicious flavor please every one. It appears to me that it has not yet been rated sufficiently high. What is your opinion? *New Haven, Aug. 1, 1848.*

[The Pratt is certainly one of the very best new American pears. We would place it among the twenty best varieties yet known.—ED.]

.....
TO FORCE PLANTS TO BLOOM, &c.—In common, I presume, with many other of your subscribers, I highly approve of the new feature of your magazine, in virtue of which amateurs, like myself, may propose questions on points of difficulty. Out of many queries I wish to propose, I select the following:

1. When water is withheld from green-house plants to make them flower, should the dryness be continued till the flower-buds appear? In other words, if the plants do not come into flower at the proper blossoming season, should the attempt to force them into flower be continued, or should they have water, and be allowed to make their new growth? (a.)

2. What are the best means of promoting inflorescence, when plants are inclined to grow luxuriantly without blooming? (b.)

3. Can you or any of your correspondents tell me how to get rid of the *Coreus hesperidus*,—white mealy bug, in my green-house? (c.)

4. Mr. JAMES DOUGALL furnished, for your April number, an article on the cultivation of grapes in pots; a subject in which I feel much interest, but am unable to obtain from that article all the information I need in order to making experiments. Would some experienced cultivator be kind enough to furnish another article, containing more details as to the routine of culture? One point stated is, that the pots are to be placed in the open air till January, and *protected from frost*. This may be practicable in the climate of England, but I should think not in our own. By answering these questions, you will oblige *A Subscriber. Williams-town, Mass., July 5th, 1848.*

P. S. Your articles on the cultivation of Azaleas, Japan lilies, &c., were highly interesting and valuable. Will not others of your correspondents furnish plain directions for the management of *Gardenias*, *Rhododendrons*, and other green-house plants?

ANSWERS.—(a.) Withhold the water only while the plants are *at rest*; when they commence growing, give them a liberal supply.

(b.) The simplest and best means is to *pinch out* the extremity of every young shoot, (after the plant has attained a blooming size,) as soon as it has grown three or four inches. Continue this till the plant is forced to form flower-buds.

(c.) Hot water is the best means in our knowledge of destroying this troublesome insect; but it must be used with judgment. Will some of our exotic florists favor us with an answer? ED.

.....
ORCHARDING IN MISSISSIPPI.—*A. J. Downing, Esq. Dear Sir:* It may be pleasing to you to know something of the ripening of fruits here. I live about twelve miles east of Vicksburg, upon the first high land on the east side of Big Black.

Fruits ripen in Vicksburg, (hilly land, and protected by the large body of water flowing past it,) about two weeks earlier than here; therefore the ripening of my fruits must not be compared with those of Vicksburg. For instance, the Early York (not the "true," ripened in Vicksburg say 28th of May, (earlier by 15 days than I ever knew it,) whilst the same peach, very probably worked from the same standard tree, did not fruit here before the 21st of June.

My first peach was the little White Nutmeg, ripe 1st June. Elmira, a seedling raised here, 8 inches in diameter, beautiful Red Cling, very good for the season, ripened on the 10th June.

Early Tillotson, on the	20th	"
Early York, ("true,")	21st	"
Early York, common,	21st	"
Bruges Beauty,	24th	"
Cole's Early Red,	24th	"
Early Red Rareripe,	26th	"
*Emperor of Russia,	28th	"
Poll's Melocoton	28th	"
Violet Hatif,	28th	"
President,	30th	"
Bergen's Yellow,	1st July.	"
Snow,	1st	"

Better than I expected, and measures 8 inches.

Apples.—Red June, ripe on the 18th June.

Summer Queen,	18th June.
Early Harvest,	29th June.
Early Bough,	1st July.

I do not think I have had specimens that were a fair test, and not from over half my early varieties. I am certain that I have some ten other varieties that should have ripened before this—owing to my culture, or the season. I have been pressing my orchard forward, not regarding the fruit, because I want the trees to have size so that I can cease planting a crop. A portion of my orchard I cultivate hereafter only as an orchard; will manure no more until I get a full crop of fruit. I cannot spare the time to cultivate as for market fruit. My profit will be in raising hogs, and I will plow once or twice a year, and manure if I find it called for.

I beg you will advise me what ornamental trees to buy, so as to intersperse with native growth. I want evergreens especially. Lying east of my house I have my Negro-houses, on a ridge running

* Emperor of Russia peach grows slow here for a year or two. No mildew; and when 4 or 5 years old, grows as well as any.

northwest and southeast. The hill-side next to house I wish interspersed with evergreens; it serves as a pasture for calves, &c., and an occasional bite for my horses; it contains about ten acres. I will enclose each tree so the stock will not injure it. I have the Tree of Heaven, Paulownia, Cedar, Arbor Vitæ. I lost Irish and English Yew, Oriental Cypress, and Cedar of Lebanon.

[We advise our correspondent to introduce the Italian and Swiss Stone-Pine trees, (which bear eatable fruit, and are very ornamental,) the Deodar Cedar, and the Araucarias. (*A. brasiliensis* and *A. excelsa*, are most lovely trees, that will undoubtedly bear the winter of Mississippi.) Also that beautiful evergreen the Deodar Cedar. Among deciduous trees the *Virgilia*, the *Pinckneya*, the Purple and Weeping Beeches, and the Weeping Larch, are all well worthy of his attention.—ED.]

My yard is an intense shade—forest trees. I have some 50 Arbor Vitæ trees set out, and before I had an idea of such a thing, my sheep destroyed about 30. I thought fine sheep had more sense.

I find there are some planters in this section who begin to improve, and think we will in a few years have many beautiful residences.

I have here some few very choice varieties of peaches, which if you will accept as specimens on trial, I will send you. I think I can send you some three or four that will compare with Early York, Washington Free, and others of that high order. I allude to seedlings of my own raising, or those natives of this section. Yours truly. *M. W. Philips. Edwards, Miss., July 12, 1848.*

BURR'S STRAWBERRIES.—I notice in the Horticulturist that Wm. R. PRINCE advertises and names nine varieties of "Burr's Ohio seedling strawberries" for sale. Now I should like to know how he obtained them *all*, as some of the kinds named were not disposed of by me till last spring, and not then to him or any of his neighbors. Perhaps he can explain this to the satisfaction of the public. Yours. *J. Burr. Columbus, Aug. 16, 1848.*

NORWAY SPRUCE IN EXPOSED SITES.—I observe that in mentioning my trees—Norway Spruces—planted in an exposed site, for shelter, you gave them credit for growing fast in very poor land, on a high exposure. The land is very good, and was well mucked before they were planted, and every year since the grass and weeds have been kept from the trees. It is to this enriching and constant attention that I attribute the growth of the trees, in spite of their exposure to the bleak sea breezes. I must also add that it is owing, in a measure, to their being *planted closely* at first, so as to shelter each other. I have gradually thinned out these trees as they grew, so as not to allow their branches to touch, replanting those removed in other places.

I should think that, in the last four years, those trees on the top of my hill have grown, on an average, two and a half feet per annum. Some few of them will average three feet of yearly growth,—one grew four feet, so that at the present time, this plantation of Spruces, (made about eight years ago,) will average about fifteen feet high.

Others planted at the same time, (then six inches high,) are now four or five feet high, though planted in a sheltered spot and good soil; but for the first five years they were neglected and overrun with weeds and grass, so that they scarcely grew at all. Three years ago I took them in hand, and they have now taken a vigorous start.

A good deep soil and constant cultivation are indispensable to the growth of any tree that is worth planting, and with these advantages I *know* that trees *planted closely* will defy exposure, even on the bleakest sites. Very truly yours. *J. M. Forbes. Milton, near Boston, July 27, 1848.*

SIBERIAN KALE.—Dear Sir—In your acknowledgments to readers and correspondents in August number of Horticulturist, you say that you have received from Messrs. J. M. T. & Co. "*seeds of Siberian Kale*." The name is decidedly Russian, and it almost makes one's teeth chatter to think of this cabbage or kale, all the way from Siberia. The sight of your announcement immediately brought to our mind the fact, that in the "Gardener's Chronicle" for June 20, 1846, there is an article from the pen of Dr. LINDLEY on the very subject of this "Kale," and as it is appropriate and to the point, we give your readers the benefit of the Doctor's judgment. The Dr. wields a caustic pen when he's in the humor, and occasionally makes slashing work among the tradesmen of his own country, when they venture to deal too largely in humbug. But let's hear what he says about the "kale:"

"*That the craving for novelty is insatiable, we all know too well; or if we doubted it, the avidity with which the world (of gardening) runs after every thing called new, would satisfy the most inveterate sceptic. To be new indeed, or to seem so, appears to have with half the world the same meaning as to be good. 'Well, Mr. C., what have you that is new?' is the first question asked of a seedsman; no one thinks of saying, 'What have you that is good?' It is novelty that is sought for, and not quality.*"

"This is strikingly exemplified by the way in which the excellent varieties of vegetable seeds annually distributed by the Horticultural Society are often received. The seeds are demanded, and when they are given, surprise, or something worse, is expressed that they are only vegetables. It is in vain to say these varieties of lettuce, onion, radish, celery, broccoli, are of the finest quality that art can produce. The answer is, 'pooh! that is all very well, but *they are not new*; we admit the excellence of the quality, but they are only the old things.' Imagine a man, whose dinner has been provided with the most perfectly cooked dishes, accompanied by the finest wines, crying out, 'This dinner is extremely bad; it consists of nothing but beef, mutton and venison; and as for the wine it is only sherry and claret.' And yet such a man would be indignant if his cook gave him horse-flesh and tincture of rhubarb, which he would deserve in return for his absurdity.

"To meet these difficulties, and to seem to minister to so silly a habit, cooks invent all sorts of outlandish names; they call broth *consommé*; white

sauce, *béchamel*; Parsley, *verd de persil*, and a stew, a *ragout*, a *godard*, or a *chambord*; while pea soup and stuffing are elevated to the honors of *purée* and *farces*. Can any thing be more ridiculous? and yet the seedsman is driven, by the absolute necessity of his position, to similar devices. And not dishonestly either. He feels that the evil is not of his own creation; that the practice is forced upon him, and that if he does not adopt it, his custom will desert him; and therefore he gets hold of some very good old variety, claps upon it a *new* name, duly advertises it, and lo! his desk is loaded with orders, and he at once becomes a man of enterprise and skill.

"A kind of cabbage, or rather winter green, is purchasable under the name of 'Jerusalem Kale.' (Siberian is the *new* name.) Nothing can be better. It is perfectly hardy, and forms a most delicious vegetable, if sent to table dressed like asparagus. It is doubtful if an esculent of more real excellence exists among us. It was described in the Transactions of the Horticultural Society nearly thirty years ago. Its value was pointed out by the late Mr. WEDGWOOD, who blanched it like sea-kale, and found it an admirable substitute for the latter, to which it is in our mind superior; but nobody grows it now-a-days, because it is not called a novelty, puffed and made the subject of exaggeration. If we ask what it has to do with Jerusalem, (or Siberia,) we shall be puzzled to find the connection, the more especially since its claims are equal to a Prussian, Russian, Hungarian, (Buda,) and Manchester origin, for it has successively borne all these names.

"It is but another example of the advantage of substituting new and fine names for old familiar ones. Had any body attempted to sell it as a very good kind of Collard or Colewort, he would not have found a customer; or if he did, it would have been at the price of rapeseed; but a foreign origin was given it, with a fine sounding name, and a demand was created; new markets were successively obtained by other new names, but now ingenuity is exhausted, and it does not sell. Nobody grows Jerusalem Kale. Yet if it were properly advertised under the name of Hierosolymatanian Kale, and an ingenious fable were circulated about its having been found in a Pacha's garden on Lebanon, we engage to say that the demand would become enormous. The sale would be doubted if it bore the name of Ptolemaic Kale, and were shown to have been found in the folds of a mummy, so that its pedigree might be traced up to the potage of the Pharaohs.

"Shrewd Mr. COBBETT found the value of these devices, when he discovered that the specious name of locust tree, and a flourishing account of its excellence, would produce him a crown, while the nurseman could only get sixpence for the same thing, which he was simple enough to sell under the old name of *Acacia*."

COBBETT certainly was a cunning fellow, and has many imitators on this side of the Atlantic. To be successful in these times of 'progress,' one must be 'wide awake,' and not particularly squeamish in practicing all sorts of humbug.—*Wm. W. Valk, M. D. Flushing, L. I., Aug. 8, 1848.*

[This vegetable is at least very little known or cultivated in this country, and as early spring vegetables are especially desirable, we thank MESSRS. THORBURN for a parcel of its seeds, received by them from abroad, under the double name of "*German Greens*" or "*Siberian Kale*."—*Ed.*]

BELLE MAGNIFIQUE CHERRY.—I am glad to see you have placed this famous cherry in its proper rank. It has borne with us for three or four years, and has never failed to be large, beautiful and fine. The tree is very hardy and productive,—adapting it well to cold climates. It is decidedly the best, to our taste, of the late acid cherries; as it not only cooks well, but when fully ripe, is highly relished by many for the dessert. On the *Mahaleb* stock, it makes a beautiful prolific garden tree. Yours, *P. Barry. Rochester, N. Y., August 18th, 1848.*

GUM SHELLAC SOLUTION.—*Dear Sir:* I have tried your varnish of gum shellac and spirits of wine for pruning trees, (*Hort.*, vol. 2, p. 533), and fully agree with all that your Philadelphian says in its favor.

I have also to add, that in *crown grafting*, I have found it a perfect substitute for all bandages and other compositions. I have tried it with peaches, apples and pears, and have also succeeded in grafting a few sorts of roses with it, which before I had never been able to do in a single instance. I commenced spring budding on the 2nd of March, and have never at any season been more successful. I have always headed off to an inch above the bud and stripped off every limb and leaf, both below and above at the time of insertion. Yours, respectfully, *Robert Chisholm. Beaufort, S. C., July 20.*

MAGNOLIA GRANDIFLORA.—We have examined this spring pretty thoroughly into the matter of "double," or "semi-double" varieties of this magnolia, and this is the result. No flower that I can find has more than 9 petals, but other trees growing in the immediate vicinity of these, bear flowers with only five or six petals. In the grove which Mr. M. and I searched, we thought the majority of the trees bore flowers with 9 petals. What cultivation will do remains yet to be seen. I measured one of the buds of the last mentioned, and found it more than seven inches in length and four in breadth, just before the petals began to unfold. This is quite a common size, but those with fewer petals are usually smaller every way, both in leaf and flower. The scent is heavy, less agreeable perhaps than the swamp magnolia of the north, as much so as the night-blooming Jasmine, (*Cestrum*), is to the common white. The tree grows rapidly. Some seedlings of mine, that a year ago were only four or five inches high, are now four feet. Another plant is 5 1-2 feet and finely branched. I do not think this tree casts its leaves until it begins to bloom. Then when all other trees in the forest are putting on their summer robes, the ground is covered with the fallen leaves of the magnolia grandiflora, and the tree looks poor and ragged as white flowers begin to unfold. Before the flowers are over, however, it wears a very different aspect—the bright green leaves already clothing it, and forming the richest back ground for the remaining

full blown flowers. We have marked those trees whose flowers are finest, and intend sending you some seeds from them when they mature. I think the cone-like seed vessels were more ornamental than the blossoms, as their pink, velvet-like surface gapes or bursts, open here and there, and disclose the bright red seeds. It is interesting to watch them as they *shoot out* these seeds, which hang suspended from the cone by slender threads. Sometimes in five minutes, half the seeds in the cone will be thus displayed, the upper ones coming out more slowly, and the lower beginning to drop before all are open. Sincerely yours. M. D. M. Port Gibson, Miss., July 16, 1848.

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STRAWBERRY SELECTIONS.—MR. DOWNING: Permit me again to refer briefly to the strawberry question, in order to explain the apparent contradiction in the articles written by me at different periods, alluded to by Dr. VALK in the last number of the Horticulturist. The Doctor does not seem to discriminate between a mere *opinion*, and conclusions derived from carefully conducted experiments. In 1844, when my attention was first directed to the sexual character of the strawberry, circumstances induced me to venture the *opinion* that some *pistillate* varieties would fruit without being in the neighborhood of staminate ones, &c., but subsequent experiments by myself and others, put this question at rest, by *demonstrating* that they would not. I believe there is one circumstance to which I did not allude in my remarks in your July number. Though the receptacle is never entirely wanting, except accidentally, yet it is frequently defective in function, and will not under any circumstance produce fruit. Such plants might with some propriety be called *staminate*. We should then have three terms sufficiently characteristic of all the sexual differences, viz: *hermaphrodite*, both organs effective; *pistillate*, pistils only effective; *staminate*, stamens only effective. The latter class when produced from seed, should be destroyed, as their only use can be to fructify *pistillate* varieties; but this can be done as well by hermaphrodites, which will also bear fruit.

I agree with Mr. DOWNING, in considering the *Large Early Scarlet* a valuable kind. *Hovey's Seedling*, *Black Prince*, *Burr's New Pine*, *Crimson Cone*, and *Large Early Scarlet*, are perhaps five of the very best varieties for general cultivation that have been fully tested. G. W. Huntsman. Flushing, Aug. 9th, 1848.

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CHERRY CURRANT.—I have had more than a pint of this variety this season. It fully equals the account in your last number; flavor and quality below the white and red Dutch; growth gigantic, and foliage thick and heavy. It is quite distinct from other currants, and will make quite a tree. Yours. M. P. W. Boston, Aug. 10, 1848.

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SALISBURIA ADIANTIFOLIA.—I see, on looking over my two bound volumes of the Horticulturist, no notice of this most interesting tree—the Ginko tree of Japan. I esteem it as one of the most curious and interesting of all hardy trees; for it is as hardy here as a poplar, and makes shoots three feet long

in good soil. It is a cone bearing tree, but its leaves are wholly unlike those of any of the pine family, and bear a striking resemblance to those of the maiden-hair fern, (*Adiantum pedatum*), except that they are about 1-2 inches broad. It is now to be had in all the large nurseries, and I am surprised to see it so seldom in pleasure grounds. There is a specimen in the Hamilton place near Philadelphia, 60 feet high. Yours. S. Philadelphia, Aug. 12, 1848.

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SOMETHING FOR THE CURIOUS.—There is a locust tree in Pittsfield, growing in a southern exposure, which had put out its flower buds in advance of other trees of the same kind. These flower buds some night last week were all killed by the frost excepting those that grew on one branch: on this limb of the tree, near the body, were two horseshoes left hanging; and all the buds beyond the point of contact with the iron are uninjured.

Query. Would not suspending a chain or old iron on the branches of a fruit tree, on frosty nights when fruits are advanced, preserve the fruit from destruction? *Pike Co. Free Press.*

WASH FOR BUILDINGS.—The following recipe was sent by a gentleman from New-Orleans to his friend in Philadelphia, who writes that the wash was satisfactorily tested upon the roof of the Phoenix Foundry in that neighborhood. It is not only a protection against fire, but renders brick work impervious to water. The basis is lime, which must be first slaked with hot water in a tub, to keep in the steam. It should then be passed, in a semi-fluid state, through a fine sieve. Take six quarts of the fine lime and one quart of clean rock salt, for each gallon of water—the salt to be dissolved by boiling, and the impurities skimmed off; to five gallons of this mixture, salt and lime, add one pound of alum, half a pound of copperas, three-fourths of a pound of potash, (the last to be added gradually,) four quarts of fine sand or hard wood ashes; add coloring matter to suit the fancy. It should be applied with a brush. It looks as well as paint, and is as lasting as slate. It stops small leaks, prevents moss from growing, and renders wood-work incombustible. *N. Y. Farmer.*

IRON VS. PEAR BLIGHT.—At Canfield, in Mahoning county, we saw at the residence of Mr. CANFIELD, a number of large pear trees, twenty-five to thirty years old, that seemed to have been blighted some years ago, but had recovered. On inquiring of Mr. CANFIELD respecting these trees, he informed us that ten years ago, when they were quite large and productive, they were struck with the blight, and in two years they were apparently ruined. He then took a quantity of bog iron ore, found in the neighborhood, and applied several wheelbarrow fulls around the trunk and roots of each tree. The following spring the trees put out new shoots with great vigor, and the leaves exhibited a deep green healthy appearance throughout the season. The trees formed new tops, and have continued healthy from that time to this, excepting one or two, the trunks of which had partly died before the remedy was applied. *Ohio Cult.*

ANSWERS TO CORRESPONDENTS.

SEA KALE.—*Wm. Bachelder*, (North Andover, Mass.) Sea Kale grown in the open air does not need any covering in winter here. In order to blanch the young shoots, we cover them early in the spring with three or four inches of sand, or light sandy soil. You may, for safety in your latitude, do this late in the autumn. The growth of the sea-kale is improved by a top dressing of salt every spring, like asparagus.

PEAR SEEDLINGS.—*C. B.*, (New-Jersey,) will find it very difficult to have success in raising pear seedlings by the quantity. A rich, moist soil of much depth, and one especially adapted in its inorganic elements, is absolutely necessary for this crop. Here and there a grower is successful from possessing this soil, but it is rarely found in the middle or southern states.

Wm. B., (North Andover.) The seeds of common engrafted field pears, that are perfectly vigorous and healthy, give the best stocks for budding upon.

SELECTIONS OF FRUITS.—*A Subscriber*, (Philadelphia.) The five best plums for your purpose are the following: Jefferson, Green Gage, Imperial Ottoman, Coe's Golden Drop, Purple Favorite.

B. P. R. The *Fastolff* is rather larger than the true *Red Antwerp* Raspberry, but it is not higher flavored, and is softer, and does not therefore endure carriage to market so well. It bears most abundantly with us.

QUINCES.—*A Jerseyman*. Prune Quinces very little—let them form low, thick bushes, and mature them well every year. A good top-dressing of manure and ashes, every autumn, will double the size of the fruit.

TOMATOES.—*A Vermont Reader*. Train your plants on the south side of a wall, building or tight fence, and you will find them to ripen two weeks earlier. The cherry tomato is an early sort, and one of very mild flavor.

MANURES.—*An Inquirer*, (New-Bedford.) You will double or quadruple your charcoal in value if you will have the urine poured over it. The ammonia and salts of the latter will all be absorbed by the charcoal, to be given out to the roots of plants afterwards as required.—*A. R. C.*, (New-York.) You will find it much the better mode to dissolve the bones before using them. There are full directions for this in our last number, p. 93.—*J. B.*, (Philadelphia.) Apply the gypsum as a top-dressing to your trees in the month of October. Fork it under the surface very slightly.

ARBOR VITE.—*A Young Hand*, (Westchester.) Gather the seeds in October or November, and plant them immediately in a deep, well pulverized border, on the north side of a board fence; or, (which is the better mode,) in flat shallow boxes. (three inches deep and two by three feet across,) filled with good light soil. These boxes should be put in a light place, the cellar or in a cold pit, till spring, being watered occasionally to keep the earth moist. In the spring, they should be placed in a place shaded, except from morning and evening sun, and well watered every evening. In this way you will save all the seedlings, which if

planted in the open border, more than half are usually lost the first year. Once large enough to transplant into the nursery rows, they will grow in any exposure. Seeds of the Laburnum should be planted immediately in any open situation in good soil.

STRAWBERRIES.—*Fragaria*, (Boston.) The spring is the preferable time for making new beds, only because the plants are more certain to grow then. There is a new white strawberry grown in England, called the Bicton Pine. Will some of our nurserymen import it? Ross' Phoenix is a very improved variety of the Keen's seedling; but though it bears large crops of very delicious fruit in light and deep rich soils, yet so far as we have seen it, it does not thrive well in heavy or stiff soils. *Burr's New Pine* is considered the best of Burr's seedlings. If you have charcoal dust in abundance you cannot do better than to cover your beds one inch thick in November, and allow it to remain on all the next season.

EVERGREENS.—*A. Y. H.*, (Westchester.) The best time to remove evergreens in our judgment, is in the spring. Small plants will do quite well if taken up in the fall and laid in earth, as you propose, in a dry cellar, till spring. The evergreen magnolia, (*M. grandiflora*.) will not stand the winters north of New-York.

LAWNS.—*I. Williams*. One part white clover to three parts red-top, makes the best lawn grass mixture for a soil like that you describe. If you wish to preserve its greenness in summer you must trench the soil so that the roots may penetrate two feet deep; it cannot be done by top-dressing.

PEAR TREES.—*A North Carolinian*. Keep the surface of the ground under your trees coated with straw, litter or shavings several inches deep. This will keep the roots in an uniform state of heat and moisture. See Mr. CLEVELAND's remarks on the subject in this number, and those of a *Maryland Subscriber* in a previous one. Nothing injures delicate fruit trees so much as the south as the heat of the sun, and the alternate dryness and moisture of the surface of the ground.

GRAPES.—*A Vigneron*, (Ohio.) The rot in the Catawba grape has also appeared in this part of the country this season. The nature of this disease is little known, and no certain remedy has yet been discovered. The only information we have of any satisfactory experiment on this subject you will find in the article of a correspondent in a previous page. The *Bland* grape is a shy bearer, and would not be profitable for market.

NURSERIES.—*H. B.*, (Philadelphia.) We have no connection, either direct or indirectly, with any nursery establishment or commercial garden. The "Highland Garden" is simply the name of our private grounds. *T. C. Peters*.—We have sent your letter to a respectable grower in New-York, who will send you the plants you wish.

IMPORTED EVERGREENS.—*A Subscriber*, (Pittsburgh.) The best time to have Norway spruces and other hardy evergreens, sent from abroad, is during the month of October, or as early as they can be lifted in the nurseries there—say from the 1st of October till the 10th of November. They should be packed in *dry moss*, and put up either in

matted bundles or crates. When they arrive at Pittsburgh, if the ground is not open, unpack and carefully lay them in by the heels in a sheltered and shaded place, (treading the earth firmly about the roots and burying them deeply,) and then cover them with a temporary rough box or shelter of boards. If the ground is frozen, unpack and lay them in, in the same manner, in a cellar or root house till spring. If they arrive at New-York too late for transportation inland, have them unpacked and laid in the same manner there, till the spring opens. Any ordinary November frost would not injure them while they are in the bundles or crates.

OKRA.—*Long Island.* Take the young pods of okra and stew them in water, to which a little butter, pepper and salt have been added, till they are quite tender. Then serve them up with a very little grated nutmeg.

PARADISE STOCKS.—*J. R. Stanford,* (Clarksville, Geo.) The "Paradise Apple" is a dwarf growing variety, common in the nurseries abroad, and used for grafting other varieties upon, to make them dwarf. Young paradise stocks can be had

of any of the leading English nurserymen, (SKIRVING, of Liverpool, RIVERS, of Sawbridgeworth, &c.,) at a moderate price per thousand. We are not aware that they are grown for sale by the trade in this country, but if so, will be glad to learn where.

EVERGREENS.—*James,* (Hartford.) Give the soil about your young evergreen trees which are "stunted," a top-dressing of nitrate of soda, at the rate of 1 lb. to the square rod, early next spring. This will start them into luxuriant growth again. Stir the soil 6 inches deep just before applying the salt.

BUDDING.—*J. C. Marston,* (Canada West.) Buds for budding may be packed in damp moss and kept a week or ten days without material injury. The buds of the apple may be kept longer. The moss must not be wet—only damp.

* * * Correspondents who are subscribers, will hereafter find replies to any questions on subjects within the scope of this journal, in this department, (unless otherwise requested)—and all queries put in a brief shape, and sent to us free of postage, shall receive attention. *Ed.*

PENNSYLVANIA HORTICULTURAL SOCIETY.

The stated meeting of the society was held in the Chinese Saloon on Tuesday evening, August 15, 1843. The president in the chair.

The display of fruit far exceeded any former monthly occasion of the society, and betokened a most prolific season, and a harbinger of a successful effort at the grand autumnal exhibition a month hence. The grapes were unusually fine, the bunches of great weight, and berries in most instances, very large. Some of the Black Hamburg, from H. W. S. Cleveland, Burlington, were, for size of berry, remarkable; others of same variety, from Eden Hall, were very heavy; the White Portugal, White Frontignac and Chasselas of Fontainebleau, were prime. The show of pears was excellent; many were new and seedling varieties, consisting of Ott's Seedling, of fine quality, Trimble, and Jones' Seedling, for the first time exhibited; fine specimens of the Tyson, Washington, Lodge, Copia, Kingessing, Moyamensing, Petit, Chapman, Napoleon, Dearborn's Seedling, and numerous others, of which many were unnamed. Of apples, several beautiful seedling varieties were seen, and others shown for the first time, of which were the Shepherd variety, and the 20 acre, said to possess fine qualities, Red Juneating, Bough, Summer Pearmain, Hagloe, Harvest, Maiden's Blush, &c. &c.; specimens without blemish. Plums,—fine fruit of the Huling's superb, Bolmar's Washington, Golden Drop, Imperial Gage, Apricot Plum, large Blue and Green Gage. Nectarines,—beautiful specimens of Vermash, Oatlands, New White Downton, Newington, Red Roman, Boston, Elruge, Fairchild and others not named. Peaches,—Scott's Seedling, Crawford's Melocoton, Noblesse, and several seedlings of merit. A dish of fully ripe Bananas from the green-house of James Dundas, attracted attention. Of vegetables, the display was uncommonly rich in quality and variety. And of plants, there were several tables of choice collections, unusual for this month, with many tastefully arranged bouquets of cultivated and native flowers.

Reports of the Standing Committees.

The Committee on Plants and Flowers report that they have awarded the following premiums:

For the best three named hot-house plants, to B. Daniels, gardener to C. Cope; for the 2d best do., to the same. For the best three green-house plants, to Robert Buist. For the best collection of plants in pots, to B. Daniels, gardener to C. Cope; for the 2d best, to Peter Raabe; for the 3d best, to David Scott, gardener to Frederick Lennig. For the best display of indigenous plants in pots, to Robert Kilvington. For the best bouquet or design, to Robert Kilvington. For the best design of indigenous flowers, to Peter Raabe. For the

best basket of cut flowers, to B. Daniels. For the best basket of indigenous flowers, to Robert Kilvington.

The Committee for awarding premiums on Fruit, report that they have awarded—for the best three bunches of black grapes (Black Hamburg), to H. W. S. Cleveland; for the 2d best do., to Jacob Snider, jr. For the best white grapes, three bunches of White Portugal, to Thomas Maghrua, gardener to Mrs. Gunby, Montgomery county; for the 2d best do., White Frontignac, to B. Daniels, gardener to C. Cope. For the best nectarines, six, to John Sherwood; for the 2d best nectarines, New White, to B. Daniels, gardener to C. Cope. For the best six plums, Green Gage, to Isaac B. Baxter; for the 2d best plums, Washington, to the same. For the best two dozen peaches, Crawford's Melocoton, to John Perkins. For the best six pears, Tyson, to Jonathan Tyson; for the 2d best do., Washington, to Edwin Middleton. For the best two dozen apples, Summer Pearmain, to Jno Perkins; for the 2d best do., Maiden's Blush, to the same. And a special premium of three dollars, for the Ott Pear,—a new variety from Montgomery county, to Samuel Ott. Also, a special premium of two dollars for a dish of superior Bananas, to James Buist, gardener to James Dundas; and one of three dollars, for three splendid varieties of grapes, deposited by Isaac Newton, grown by Wm. Westcott, at Eden Hall.

The display of fruit was greater in quantity, and variety, than ever shown before the society in the month of August. Among them were a number of new seedling varieties presented, though exceedingly fine, could not come into competition, on account of not having the requisite number. The committee would especially notice some fine canteloupes, and award a special premium of one dollar for the kind named Beachwood, shown by B. Daniels, gardener to C. Cope.

The Committee on Vegetables report that they have awarded the following premiums:

For the best display of vegetables by market gardeners, to Anthony Felten; for the 2d best display, to Henry Cooper. For the best display of do. by amateurs, to B. Daniels, gardener to C. Cope; for the 2d best display of do., to Isaac B. Baxter. On motion,

Ordered, That the number of delegates, from our society, to attend the great National Convention of Fruit-Growers, to be held in the city of New-York on the 10th October next, be increased to twenty-five.

A communication from the corresponding secretary of the New-Jersey State Horticultural Society was read, reporting the appointment of delegates to our autumnal exhibition, and inviting a reciprocity.

THO. P. JAMES,
Recording Secretary.



Horticulturist,

AND

JOURNAL OF RURAL ART AND RURAL TASTE.

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No. 4.

EDITOR. I AM HEARTILY GLAD to see you home again. I almost fear, however, from your long residence on the continent, that you have become a foreigner in all your sympathies.

Traveller. Not a whit. I come home to the United States more thoroughly American than ever. The last few months residence in Europe, with revolutions, tumult, bloodshed on every side, people continually crying for liberty—who mean by that word, the privilege of being responsible to neither God nor governments—*ouriers* expecting wages to drop like manna from heaven,—not as a reward for industry, but as a sign that the millenium has come; republics, in which every other man you meet is a soldier, sworn to preserve “liberty, fraternity, equality,” at the point of the bayonet; from all this unsatisfactory movement—the more unsatisfactory because its aims are almost beyond the capacities of a new nation, and entirely impossible to an old people—I repeat, I come home again to rejoice most fervently that “I, too, am an American.”

Ed. After five years expatriation, pray tell me what strikes you most on returning?

Trav. Most of all, the wonderful, extraordinary, unparalleled growth of our coun-

try. It seems to me, after the general steady, quiet torpor of the old world, (which those great convulsions have only latterly broken,) to be the moving and breathing of a robust young giant, compared with the crippled and feeble motions of an exhausted old man. Why, it is difficult for me to “catch up” to my countrymen, or to bridge over the gap which five years have made in the condition of things. From a country looked upon with contempt by monarchists, and hardly esteemed more than a third rate power by republicans abroad, we have risen to the admitted first rank everywhere. To say, on the continent, now, that you are from the “United States,” is to dilate the pupil of every eye with a sort of glad welcome. The gates of besieged cities open to you, and the few real republicans who have just conceptions of the ends of government, take you by the hand as if you had a sort of liberty-magnetism in your touch. A country that exports, in a single year, more than fifty-three millions worth of bread stuffs, that conquers a neighboring nation without any apparent expenditure of strength, and swallows up a deluge of foreign emigrants every season,—turning all that “raw material,” by a sort of wonderful vital force, into good citizens,—such

a country, I say, is felt to have an *avoir-du-pois* about it, that weighs heavily in the scale of nations.

Ed. I am glad to see you so sound and patriotic. Very few men who go abroad, like yourself, to enjoy the art and antiquities of the old world, come home without "turned heads." The greatness of the past, and the luxury and completeness of the present forms of civilization abroad, seize hold of them, to the exclusion of everything else; and they return home lamenting always and forever the "purple and fine linen" left behind.

Trav. "Purple and fine linen," when they clothe forms of lifeless majesty, are far inferior, in the eyes of any sensible person, to linsey-woolsey, enwrapping the body of a free, healthy man. But there are some points of civilization—good points, too,—that we do not yet understand, which are well understood abroad, and which are well worth attention here at home, at the present moment. In fact, I came here to talk a little, about one or two of these to-day.

Ed. Talk on, with all my heart.

Trav. I dare say you will be surprised to hear me say that the French and Germans—difficult as they find it to be republican, in a political sense—are practically far more so, in many of the customs of social life, than Americans.

Ed. Such as what, pray?

Trav. Public enjoyments, open to all classes of people, provided at public cost, maintained at public expense, and enjoyed daily and hourly, by all classes of persons.

Ed. Picture galleries, libraries, and the like, I suppose you allude to?

Trav. Yes; but more especially at the present moment, I am thinking of PUBLIC PARKS AND GARDENS—those salubrious and wholesome breathing places, provided in

the midst of, or upon the suburbs of so many towns on the continent—full of really grand and beautiful trees, fresh grass, fountains, and, in many cases, rare plants, shrubs and flowers. Public picture galleries, and even libraries, are intellectual luxuries; and though we must and will have them, as wealth accumulates, yet I look upon public parks and gardens, which are great social enjoyments, as naturally coming first. Man's social nature stands before his intellectual one in the order of cultivation.

Ed. But these great public parks are mostly the appendages of royalty, and have been created for purposes of show and magnificence, quite incompatible with our ideas of republican simplicity.

Trav. Not at all. In many places these parks were made for royal enjoyment; but even in these, they are, on the continent, no longer held for royal use, but are the pleasure grounds of the public generally. Look, for example, at the Garden of the Tuileries—spacious, full of flowers, green lawns, orange trees and rare plants, in the very heart of Paris, and all open to the public, without charge. Even in third rate towns, like the Hague, there is a royal park of 200 acres, filled with superb trees, rich turf, and broad pieces of water,—the whole exquisitely kept, and absolutely and entirely at the enjoyment of every well disposed person that chooses to enter.

Ed. Still, these are not parks or gardens made for the public; but are the result, originally, of princely taste, and afterwards given up to the public.

Trav. But Germany, which is in many respects a most instructive country to Americans, affords many examples of public gardens, in the neighborhood of the principal towns, of extraordinary size and beauty, originally made and laid out solely for the

general use. The public garden at Munich, for example, contains above 500 acres, originally laid out by the celebrated Count RUMFORD, with five miles of roads and walks, and a collection of all the trees and shrubs that will thrive in that country. It combines the beauty of a park and a garden.

Ed. And Frankfort?

Trav. Yes, I was coming to that, for it is quite a model of this kind of civilization. The public garden of Frankfort is, to my mind, one of the most delightful sights in the world. Frankfort deserves, indeed, in this respect, to be called a "free town;" for I doubt if we are yet ready to evince the same capacity for self-government and non-imposition of restraint as is shown daily by the good citizens of that place, in the enjoyment of this beautiful public garden. Think of a broad belt, about *two miles long*, surrounding the city on all sides but one, (being built upon the site of the old ramparts,) converted into the most lovely pleasure grounds, intersected with all manner of shady walks and picturesque glades, planted not only with all manner of fine trees and shrubs, but beds of the choicest flowers, roses, carnations, dahlias, verbenas, tuberoses, violets, &c. &c.

Ed. And well guarded, I suppose, by *gên-d'armes*, or the police!

Trav. By no means. On the contrary, it is open to every man, woman and child in the city; there are even no gates at the various entrances. Only at these entrances are put up notices, stating that as the garden was made for the public, and is kept up at its expense, the town authorities commit it to the protection of all good citizens. 50,000 souls have the right to enter and enjoy these beautiful grounds; and yet, though they are most thoroughly enjoyed, you will no more see a bed trampled

upon, or a tree injured, than in your own private garden here at home!

Ed. There is truly a democracy in that, worth imitating in our more professedly democratic country.

Trav. Well, out of this common enjoyment of public grounds, by all classes, grows also a *social freedom*, and an easy and agreeable intercourse of all classes, that strikes an American with surprise and delight. Every afternoon, in the public grounds of the German towns, you will meet thousands of neatly dressed men, women and children. All classes assemble under the shade of the same trees,—the nobility, (even the king is often seen among them,) the wealthy citizens, the shopkeepers, and the artisans, etc. There they all meet, sip their tea and coffee, ices, or other refreshments, from tables in the open air, talk, walk about, and listen to bands of admirable music, stationed here and there throughout the park. In short, these great public grounds are the pleasant drawing-rooms of the whole population; where they gain health, good spirits, social enjoyment, and a frank and cordial bearing towards their neighbors, that is totally unknown either in England or America.

Ed. There appears a disinclination in the Anglo-Saxon race to any large social intercourse, or unrestrained public enjoyment.

Trav. It is not difficult to account for such a feeling in England. But in this country, it is quite unworthy of us and our institutions. With large professions of equality, I find my countrymen more and more inclined to raise up barriers of class, wealth and fashion, which are almost as strong in our social usages, as the law of caste is in England. It is quite unworthy of us, as it is the meanest and most contemptible part of aristocracy; and we owe

it to ourselves and our republican professions, to set about establishing a larger and more fraternal spirit in our social life.

Ed. Pray, how would you set about it ?

Trav. Mainly by establishing refined public places of resort, parks and gardens, galleries, libraries, museums, &c. By these means, you would soften and humanize the rude, educate and enlighten the ignorant, and give continual enjoyment to the educated. Nothing tends to beat down those artificial barriers, that false pride, which is the besetting folly of our Anglo-Saxon nature, so much as a community of rational enjoyments. Now there is absolutely no class of persons in this country whose means allow them the luxury of great parks, or fine concerts of instrumental music within their own houses. But a trifling yearly contribution from all the inhabitants of even a small town, will enable all those inhabitants to have an excellent band, performing every fair afternoon through the whole summer. Make the public parks or pleasure grounds attractive by their lawns, fine trees, shady walks and beautiful shrubs and flowers, by fine music, and the certainty of "meeting everybody," and you draw the whole moving population of the town there daily.

Ed. I am afraid the natural *gêne* of our people would keep many of those at home who would most enjoy such places, and that they would be given up to those who would abuse the privilege and despoil the grounds. Do you think it would be possible, for instance, to preserve fine flowers in such a place, as in Germany ?

Trav. I have not the slightest doubt of it. How can I have, after going on board such magnificent steamboats as the Isaac Newton or the Bay State, fitted up with all the same luxury of velvet ottomans, rich carpets, mirrors, and the costliest furniture, that

I have found in palaces abroad, and all at the use of millions of every class of American travellers, from the chimney sweep to the president, and yet this profuse luxury not abused in the slightest manner !

Ed. But the more educated of our people—would they, think you, resort to public pleasure grounds daily, for amusement ? Would not the natural exclusiveness of our better halves, for instance, *taboo* this medley of "all sorts of people that we dont know ?"

Trav. I trust too much in the good sense of our women to believe it. Indeed, I find plenty of reasons for believing quite the opposite. I see the public watering places filled with all classes of society, partaking of the same pleasures, with as much zest as in any part of the world ; and you must remember that there is no *forced* intercourse in the daily reunions in a public garden or park. There is room and space enough for pleasant little groups or circles of all tastes and sizes, and no one is necessarily brought into contact with uncongenial spirits ; while the daily meeting of families, who *ought* to sympathise, from natural congeniality, will be more likely to bring them together than any other social gatherings. Then the advantage to our fair country-women—health and spirits, of exercise in the pure open air, amid the groups of fresh foliage and flowers, with a chat with friends, and pleasures shared with them, as compared with a listless lounge upon a sofa at home, over the last new novel or pattern of embroidery ! When I first returned home, I assure you, I was almost shocked at the extreme delicacy, and apparent universal want of health in my countrywomen, as compared with the same classes abroad. It is, most clearly, owing to the many sedentary, listless hours which they pass within doors ; no out-of-door occupations—walking considered irk-

some and fatiguing—and almost no parks, pleasure grounds, or shaded avenues, to tempt fair pedestrians to this most healthful and natural exercise.

Ed. Enough. I am fully satisfied of the benefits of these places of healthful public enjoyment, and of their being most completely adapted to our institutions. But how to achieve them? What do we find among us to warrant a belief that public parks, for instance, are within the means of our people?

Trav. Several things: but most of all, the condition of our public *cemeteries* at the present moment. Why, twenty years ago, such a thing as an embellished, rural cemetery was unheard of in the United States; and, at the present moment, we surpass all other nations in these beautiful resting places for the dead. Green-wood, Mount Auburn, and Laurel Hill, are as much superior to the far famed *Père la Chaise* of Paris, in natural beauty, tasteful arrangement, and all that constitutes the charm of such a spot, as St. Peter's is to the Boston State House. Indeed, these cemeteries are the only places in the country that can give an untravelled American any idea of the beauty of many of the public parks and gardens abroad. Judging from the crowds of people in carriages, and on foot, which I find constantly thronging Green-wood and Mount Auburn, I think it is plain enough how much our citizens, of all classes, would enjoy public parks on a similar scale. Indeed, the only drawback to these beautiful and highly kept cemeteries, to my taste, is the gala-day air of *recreation* they present. People seem to go there to enjoy themselves, and not to indulge in any serious recollections or regrets. Can you doubt that if our large towns had suburban pleasure grounds, like Green-wood, (excepting the monuments,) where the best music could be

heard daily, they would become the constant resort of the citizens, or that, being so, they would tend to soften and allay some of the feverish unrest of business which seems to have possession of most Americans, body and soul?

Ed. But, the *modus operandi*? Cemeteries are, in a measure, private speculations; hundreds are induced to buy *lots* in them from fashion or personal pride, besides those whose hearts are touched by the beautiful sentiment which they involve; and thus a large fund is produced, which maintains every thing in the most perfect order.

Trav. Appeal to the public liberality. We subscribe hundreds of thousands of dollars to give food to the Irish, or to assist the needy inhabitants of a burnt-out city, or to send missionaries to South Sea islands. Are there no dollars in the same generous pockets for a public park, which shall be the great wholesome breathing zone, social mass meeting, and grand out-of-door concert room of all the inhabitants daily? Make it praiseworthy and laudable for wealthy men to make bequests of land, properly situated, for this public enjoyment, and commemorate the public spirit of such men by a statue or a beautiful marble vase, with an inscription, telling all succeeding generations to whom they are indebted for the beauty and enjoyment that constitutes the chief attraction of the town. Let the ladies gather money from young and old by fairs, and "tea parties," to aid in planting and embellishing the grounds. Nay, I would have life-members, who, on paying a certain sum, should be the owners in "fee simple" of certain fine trees, or groups of trees; since there are some who will never give money but for some tangible and visible property.

Ed. It is, perhaps, not so difficult to get the public park or garden, as to meet all

the annual expenses, required to keep it in the requisite condition.

Trav. There is, to my mind, but one effectual and rational mode of doing this—by a voluntary taxation on the part of all the inhabitants. A few shillings each person, or a small per centage on the value of all the property in a town, would keep a park of an hundred or two acres in admirable order, and defray all the incidental expenses. Did you ever make a calculation of the sum voluntarily paid in towns like this, of 9000 inhabitants, for pew rent in churches and places of worship?

Ed. No.

Trav. Very well; I have had the curiosity lately to do so, and find that in a town of 9000 souls, and with 10 “meeting-houses” of various sects, more than \$10,000 are voluntarily paid every year for the privilege of sitting in these churches. Does it appear to you impossible that half that sum (a few shillings a year each,) would be willingly paid every year for the privilege of an hundred acres of beautiful park or pleasure grounds, where every man, woman and child in the community could have, for a few shillings, all the soft verdure, the umbrageous foliage, the lovely flowers, the place for exercise, recreation, repose, that VICTORIA has in her Park of Windsor.

Ed. Not at all, if our countrymen could be made to look upon the matter in the same light as yourself. But while no men contribute money so willingly and liberally as we Americans for the support of religion, or indeed for the furtherance of any object of moral good, we are slow to understand the value and influence of beauty of this material kind, on our daily lives.

Trav. But we *must* believe it, because the BEAUTIFUL is no less eternal than the TRUE and the GOOD. And it is the province of the press—of writers who have

the public ear—to help those to see (who are slow to perceive it,) how much these outward influences have to do with bettering the condition of a people, as good citizens, patriots, men. Nay, more; what an important influence these public resorts, of a rational and refined character, must exert in elevating the national character, and softening the many little jealousies of social life by a community of enjoyments. A people will have its pleasures, as certainly as its religion or its laws; and whether these pleasures are poisonous and hurtful, or innocent and salutary, must greatly depend on the interest taken in them by the directing minds of the age. Get some country town of the first class to set the example by making a public park or garden of this kind. Let our people once see for themselves the influence for good which it would effect, no less than the healthful enjoyment it will afford, and I feel confident that the taste for public pleasure grounds, in the United States, will spread as rapidly as that for cemeteries has done. If my own observation of the effect of these places in Germany is worth anything, you may take my word for it that they will be better preachers of temperance than temperance societies, better refiners of national manners than dancing schools, and better promoters of general good feeling than any lectures on the philosophy of happiness ever delivered in the lecture room. In short, I am in earnest about the matter, and must therefore talk, write, preach, do all I can about it, and beg the assistance of all those who have public influence, till some good experiment of the kind is fairly tried in this country.

Ed. I wish you all success in your good undertaking; and will, at least, print our conversation for the benefit of the readers of the Horticulturist.

REFORM IN POMOLOGY.

BY DR. W. W. VALK, FLUSHING.

WE thank Mr. DOWNING for his excellent paper on "Pomological Reform," in the September number of the *Horticulturist*. It was much needed, though not quite as pungent as the evil called for, against which he so justly puts forth a verdict of condemnation. The orchardist and fruit grower may well consider the "endless catalogue of names" of fruits worthless and indifferent, not only as "stumbling blocks" to their progress in horticulture, but as absolute bars, upon which they are perpetually running aground, and sticking fast in the mists and mazes of huge catalogues, "furnished gratis to post-paid applicants." It is high time that something should be done for the correction of what all sensible men must admit to be an evil of no ordinary character; a system of deception which has done more than anything else we know of, to fill our orchards and gardens with fruit only fit to pluck and throw away. It is not often that the desire is manifested to fill one's fruit orchard with every known variety, selected in most cases only by name, and for no other purpose than the mere gratification of a peculiar fancy, a penchant for a multiplicity of things without regard to quality. Where there is one instance of this folly, we may safely say there are one hundred just the reverse. A proper appreciation of *quality* only in the selection of fruits, whether for the table or cooking, will always keep the number limited, "of the best and most valuable sorts."

But where shall the honest inquirer go or look for information, when he is desirous

of selecting and planting out those varieties of fruits, only, really worth the trouble? Where shall he seek a pilot to guide him amidst the labyrinth of names crowded into nurserymen's catalogues? In some of these *amazing* publications, he will find enumerated and *recommended* near 400 kinds of apples, 500 kinds of pears, over 100 of cherries, 150 plums, 170 peaches, 130 grapes, and so in proportion of other fruits, and *all* of them praised more or less for their qualities. Can it be possible that these apples, pears, cherries, plums, peaches, and grapes, are each and every one of them "*really worthy of cultivation?*" By what sort of evidence is the inquiring amateur to judge of their merits? He wants to plant in his garden or orchard fifty or sixty trees,—a number sufficiently large to embrace the best, and *the best only*. There shall be 10 apples, 20 pears, 10 cherries, 5 plums, and 15 peaches. These he must select for himself, in most instances, and, as a help, a guide to assist him in making his selections, he turns to the nurseryman's catalogue. His 10 best apples are to be culled out of 400, and the catalogue assures him the whole are "*as represented.*" So with the pears, and the other fruits,—all are either "first rate," or "excellent," or "beautiful," or "esteemed," or "splendid," or "superior flavor," or "delicious," &c.; not one, as Mr. Downing justly remarks, is set down as "poor," or "worthless." True, there may be a "rejected list," but this false light is of very little use, when, in sober truth, two-thirds, if not three-fourths, of the fruits *not* in it should find a place

with those that are. The consequence of this state of things is, that the beginner purchases his trees at random. He may be fortunate in getting a few prizes, and gain experience by the loss of years, in finding out that great mistakes have been made somewhere. If there be one thing more than another vexatious and annoying, it is to discover, at the expiration of ten or twelve years, that we have been, during all that period, carefully nursing a lot of worthless fruit trees.

It is, undoubtedly, the "legitimate business" of nurserymen to procure and "and propagate for sale every variety of fruit," said to possess "superior qualities." It is full as much their business to *test* these presumed claims to the favor of their patrons, and not to sell either foreign or domestic "trash," with a recommendation wholly or partially untrue. Can it be possible that there are 500 pears, all so good as to leave no chance for making great mistakes in selecting twenty out of them? If the purchaser has the requisite experience, the thing is easily done; but, if he has *not* a knowledge of the good and bad, and is to take for all truth the representations of catalogues, he runs the risk of losing both his time and his money. Honesty and interest are not twin sisters; they too frequently come into direct conflict; and when they do, the former is sure to "go to the wall." Does not the nurseryman *know* that there are not more than 30 or 40 varieties of the pear "*really worthy cultivation*?" Why, then, does he put in his catalogue and offer for sale more than 400 sorts besides, to each one of which is attached some recommendatory phrase, or word, as "excellent," "fine," "splendid," &c.? We are told that he does it because the reputation of his nursery is estimated *by the size of his catalogue*; the

people being very apt to believe that he who figures largely in this way, is or must be quite an "eminent horticulturist." Varieties are retained, *known* to be valueless, because purchasers order them, and rivals keep them for sale. Here are *reasons*, to be sure, but what are they worth?

It must be obvious, from what we have said, that there is ample room for, and great need of, a thorough reform in pomology. About the fact itself there can be no difference of opinion; but when we come to the question of the *mode* of doing it, difficulties instantly present themselves, and the opposing interests of the rivalry of trade will be prolific in starting obstacles to any plan whatever. From the two leading horticultural societies, those of Pennsylvania and Massachusetts, the public had a right to expect everything in the way of regulating these matters, upon the question of *merit alone*, regardless of all else. They were "instituted mainly" for this very purpose, and should never have deviated from the path of right, in warning the inexperienced of the "shoals and breakers," upon which they are in danger of stranding. They have permitted hundreds of novices to be completely taken in, regularly shaved "*secundem artem*," by remaining silent, when they should have spoken, trumpet-tongued, with the voice of experience, and put forth a "friendly light" to guide the unwary and the ignorant. Why have they not done so? Why allowed "*numberless varieties of fruit to be exhibited at their annual shows, known to be quite unworthy of cultivation*?" It cannot be denied, with truth, that these things are so; and being so, of what benefit is it to the societies, or to any body, that scores of "*worthless*" fruit are honored with a place upon their tables? We would understand the matter if we can.

As Mr. DOWNING has very justly remarked, horticultural societies are instituted "to advance the taste for the intelligent culture of fruits and flowers." They must do more, and *direct* that taste by the well tried results of impartial investigation, the basis of all true experience. At all their exhibitions, certainly all we have ever attended in this country, there has been seen upon the tables too much indifferent and poor fruit; and we have always felt puzzled to comprehend why it was permitted to be here at all. The very fact that this kind of fruit is placed before the public, at these exhibitions, is in itself enough to convince us of the great evil of the thing. The amateur very naturally supposes that the grower would not exhibit what was worthless, or the society receive any such trash. He sees a great many dishes of apples, or pears, and other varieties of fruit, admires the looks of most of them, and takes it for granted that the whole are certainly *good*, if not *first rate*; for if they were *bad*, they would not be where they are. A society *professing* to regulate these matters, is presumed to do it effectually; and if its judges estimate an apple, a pear, a peach, strawberries, or any other fruit as good, bad, or indifferent, the public believe it should be so marked, that they may know

and profit by the experience of men of competent and impartial judgment. True, tastes may differ; but differ as they will, in some respects, the character of *first rate* fruits must ever remain the same, under approved methods of cultivation.

As reform is the order of the day, we trust the subject will receive all possible attention at the convention shortly to be held in the city of New-York. The objects aimed at are assuredly of no little importance. Fruits from various sources and localities are to be compared, doubtful points settled, and their merits fairly determined. Opinions are to be compared, as to the value of numerous varieties already in cultivation, and what is of the greatest consequence to all interested, the long catalogue of indifferent and worthless sorts, *now* propagated by nurserymen and fruit growers, is to be abridged by general consent. In anticipation of what this convention may and can do, it must be regarded with favor. Its labors, if properly directed and carried out, must be beneficial to horticulture; and the ultimate results, necessarily following such interesting deliberations, will not fail to be of enduring utility.

WM. W. VALK, M. D.

Flushing, L. I., Sept. 10, 1848.

REMARKS ON THE ROT IN HARDY GRAPES.

BY B., CHESTER CO., PENNSYLVANIA.

I OBSERVE some inquiries respecting the "*rot*" in the Isabella and Catawba grapes, in your last number, and also an account of an experiment by one of your correspondents to prevent this disease.

The Catawba grape appears to be particularly liable to this disease. Indeed, in

some parts of the neighboring country, I have seen it prevailing this year to such an extent that the ground beneath the vines is covered with the fallen berries, and the crop is a total loss.

Noticing, two or three years ago, that certain spots or patches of ground, in a

large vineyard, which was badly affected by the rot, bore grapes perfectly free from this disease, it occurred to my mind that the malady was not, as many suppose, wholly atmospheric; but arose from some defect in the soil of those portions producing the rotting grapes.

As it was not in my power, at the time, to settle this point definitely, by having the soils of the different parts analyzed, and the analyses compared, I proceeded to make a wholesale experiment, based upon the known inorganic wants of the grape.

I have a small plantation of hardy grape vines, put out at eight feet apart, and covering rows of upright trellis.

In order to make a satisfactory experiment, I determined to treat every alternate vine in some of the rows, and in other cases parts of alternate rows.

The vines were in bearing condition,—each vine extending so as to cover a trellis eight feet long by seven feet high.

The mixture I employed was the following:—to each vine half a peck Peruvian guano, half a peck gypsum or plaster, and a peck of unslaked (or two pecks slaked,) wood ashes; the whole well mixed together.

This mixture, I conceived, would give not only the necessary stimulants for growth, but also the mineral substances,—lime, potash, phosphate, and sulphuric acid,

which I conceive especially necessary to the formation of healthy foliage and fruit.

I applied it to the vines at the latter end of March, by spreading it upon the surface of the soil as soon as it was friable and mellow, and turning it under, among the roots, say four or five inches deep.

My first trial is this season. And although I ought, perhaps, not to expect the full results in one year, yet I am quite satisfied that the rot may be prevented by the use of special manures.

There is the most marked difference between the vines treated with this mixture and those not treated. The former are bearing a fine crop of fruit, of large size, and almost entirely free from rot. The latter are very badly affected with rot, (especially the Catawba,) and the grapes themselves are of much smaller size.

Now in which of the ingredients used, the specific remedy for the rot is to be found, or whether the whole together are necessary to produce the desired effect, I am unable to say. Perhaps you or some of your correspondents will explain it more clearly. Respectfully yours, B.

Chester county, Pa., Sept., 1848.
.....

[Comparing this experiment with that reported by "A Jerseyman," in our last, we should suppose the gypsum to be the necessary element in the soil, the want of which gives rise to the rot. Ed.]

THE HARDY GALAUDE PEACH.

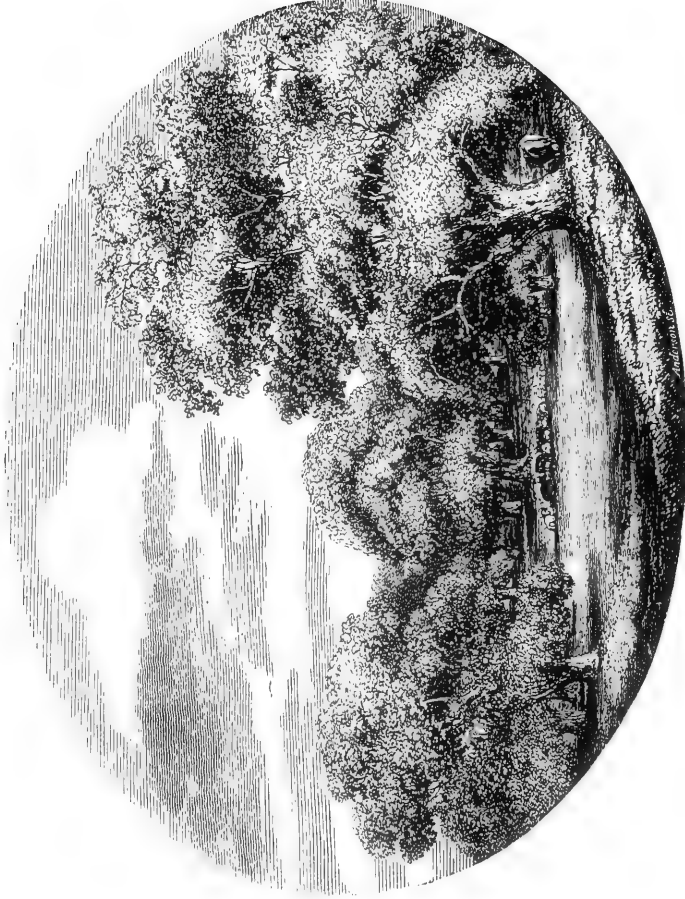
BY PARSONS & CO., FLUSHING, L. I.

SOME years since we received from France, among other new fruits, a peach tree with the above name. It fruited with us last year for the first time, and we were so much pleased with it that we determined

to cultivate it largely. It has fruited with us again this year, and fully sustains its character. We take pleasure in sending you some specimens, with leaves.

The fruit is under the medium size, with





VII
VIEW IN THE MEADOW PARK AT GENESEO.

Hort: October, 1848.

rather a deep suture, which is sometimes slightly irregular at the top. The skin is somewhat downy, of a dark blood colour on one side, and red, somewhat marbled with yellow, on the other. The flesh parts very freely from the stone where it is red, and is yellow elsewhere. It is juicy and rich, and quite unique in flavor, resembling that of an apricot. Its flowers are small and pink coloured. Its leaves have globose glands; and it ripened last year three weeks earlier than the present 1st of September. It is a most abundant bearer, even on young trees, and is often produced in clusters of four or five. We find this peach

different from the old Galaude, but know nothing whatever of its history. It is, perhaps, not so high flavored as George 4th, but its peculiar apricot flavor and its great productiveness, render it scarcely less desirable to the lover of good fruit.

PARSONS & Co.

Flushing, Sept. 1, 1848.

.....

[The specimens arrived in excellent order. The variety is correctly described by Messrs. P. & Co., and we found it one of the *highest flavored* yellow fleshed peaches that we have yet seen. ED.]

THE MEADOW PARK AT GENESEO.

[SEE FRONTISPIECE.]

ALL our country readers have heard of the Genesee valley, its beauty, and its fertility.

The great agricultural estate of the WADSWORTH family, is the pride and centre of this precious valley. That magnificent tract, of thousands of acres of the finest land, which surpasses in extent and value many principalities of the old world; those broad meadows, where herds of the finest cattle crop the richest herbage, or rest under the deep shade of giant trees; that rich spectacle of immense fields of grain, or luxuriant broad-foliaged maize, waving in the wind and ripening in the sunshine; all this is felt by every visitor, to realise even an *ideal* picture of agricultural life.

There is something stirring in the history of this immense landed estate. Over the whole of its broad surface, as in the pages of a great folio, are written the genius, the practical sagacity, and the taste of the family which has formed it. It is,

too, a record truly American, of the subjugation of the forest, of the courage and advance of pioneer life, and of the wonderful progress and present prosperity of that still youthful region.

A little more than fifty years ago, the whole of western New-York was a wilderness. The Little Falls of the Mohawk was the western limit of cultivated lands. A couple of white families only, had established themselves where the populous cities of Utica and Geneva now stand.

In 1790 the two brothers WADSWORTH, educated and sagacious men, foreseeing the future value of this western wilderness, sold their patrimonial estate in New-England, and, with a band of hardy axemen, penetrated the wilds, and settled where Genesee now stands.

Of the energy, intelligence, and practical skill, with which their operations were there conducted, this vast estate, alone, is a grand

monument. JAMES WADSWORTH, the father of the present family, who survived his brother, and lived to a ripe old age, had the satisfaction of seeing, before his death, the wisest and the most extravagant hopes of his youth realized in the greatness and prosperity of western New-York.

His own estate, covering many square miles, is an example, rare in this country, of the result of the principle of re-investing upon the land the profits of extensive agricultural industry. While other men of wealth sought investments in cities and monied institutions, Mr. WADSWORTH added to his great landed estate, and improved the value of that which he already possessed.

The great farmer of Geneseo, at the present moment, is his son, JAMES S. WADSWORTH, Esq. Inheriting all his father's strong love of rural life and agricultural pursuits, he has added to them even more science, system, and completeness in his husbandry, which enables him to combine, with the pleasure of extensive cultivation, an annual profit from his land that would satisfy a reasonable capitalist who moves among stocks and bullion.

The farmer who, on a single occasion, swelled the contribution of his countrymen to the fund for the relief of a nation perishing by famine, by the gift of a *thousand bushels of corn*, from his own well filled granary, is as well known and warmly remembered on the other side of the Atlantic for his philanthropy, as he is at home for his earnest zeal in all enlarged plans for the improvement of the calling or the condition of the agriculturist.

We must, however, not go into the details of farming, even on the large and interesting scale which this first of occupations is pursued in that fertile country. We took up our pen to write a few words

of admiration of the grand sylvan features of Geneseo. These, the farmers are but too often apt to overlook.

The elder Wadsworth was, undoubtedly, a man of great natural taste. His visit to England, in 1796, may have developed his love for fine trees and parks; but no person, not naturally full of admiration for landscape beauty, would have preserved, amid the general wantonness of all early settlers, so much woodland beauty, in a country then a wilderness, unless there were a profound sense of the majesty and beauty of nature in his own heart.

How shall we give those who have not been at Geneseo an idea of the grandeur and beauty of the great meadow park of the Wadsworth estate? Let them imagine a broad valley, running north and south. It is bounded on the east and west by ground gently rising to the level of the country. The valley itself is not broken, or undulating, but nearly level, like a great *savannah*. Through the midst of it meanders the gentle, placid Genesee river.

On the eastern side of this valley, and overlooking it, stands the village of Geneseo. It is a quiet, New-England-like village, of a single long street, bordered with trees. At the south end of this avenue you enter the grounds and mansion of the late Mr. WADSWORTH. The exterior of the latter is simple and unostentatious; but its interior breathes an air of the most refined and graceful taste. At the northern end of the village is the entrance gate of the mansion of JAMES S. WADSWORTH, Esq., an admirable specimen of a complete country house.

Both these mansions, placed nearly on the same level on the eastern slope, command a wide prospect of this valley.

And what a prospect! The whole of that part of the valley embraced by the

eye—say a thousand acres—is a *park*, full of the finest oaks,—and such oaks as you may have dreamed of, (if you love trees,) or, perhaps, have seen in pictures by CLAUDE LORRAINE, or our own DURAND; but not in the least like those which you meet every day in your woodland walks through the country at large. Or rather, there are thousands of such as you may have seen half a dozen examples of in your own county.

And they are not only grand, majestic, magnificent, noble trees—these oaks,—but they are grouped and arranged just as you, a lover of the beautiful, and we, a landscape-gardener, would have had them arranged, if we had had the taste of Sir HUMPHREY REPTON and the wand of an enchanter, and had attempted to make a bit of country after our own heart.

No underwood, no bushes, no thickets; nothing but single specimens or groups of giant old oaks, (mingled with, here and there, an elm,) with level glades of broad meadow beneath them! An Englishman will hardly be convinced that it is not a park, planted by the skilful hand of man hundreds of years ago.

This great meadow park is filled with herds of the finest cattle—the pride of the home-farm. The guest at Geneseo takes his seat in the carriage, or forms one of a party on horseback, for the afternoon drive over the “*flats*,” as the Genesee valley is called.

Thus in readiness, you follow no roads,—none are needed, indeed; for the surface of the great meadow park, for the most part, is so smooth and level that you drive here and there, to any point of interest, as you please. To us, first of all, the trees themselves,—many, beautiful in their rich masses of foliage; many, grand in their wonderful breadth of head and branches; and some, majestic and venerable in their

great size and hoary old age. Near the bank of the river still stands the great oak “*Big Tree*,”* under which the first treaty was signed between the Indians and the first settlers of Geneseo. Its enormous trunk measures 65 feet in circumference. It still wears a healthy crown of leaves, and is preserved with all the veneration which an object that awakens the sentiment of antiquity inspires in a new country. Not far from it stands the stump of a contemporary, destroyed a few seasons before by the elements. The annual rings of its trunk tell the story of *nine hundred years growth*!

You hear a loud shout from one of the party on horseback. Immediately the groups of cattle, quietly grazing in the park, raise their heads and rush from all quarters like a herd of mad buffaloes towards your party! Do not be alarmed; for, strange as it may seem to you, they are most peaceably inclined, and are only galloping round you at the well known call of their master, who has accustomed them to this little exhibition. You are now invited to alight, if you are fond of fine stock, and look at the good points of the cattle. And there is, among the many fine specimens around you, quite enough to drive all thoughts of an afternoon's nap from the head of the most indifferent breeder in the country.

What is the solution, you ask, as you resume your drive again, of the mystery of this peculiar growth of the trees in this great natural park? Has Nature, who usually sows bushes and briars in thicket and underwood amid the forest, taken it into her head to set an example here to planters of parks, and allowed only gigan-

* “*Big Tree*,” was the name of the Indian chief, of the tribe which originally lived in this part of the Genesee country. The old chieftain has long since gone to the eternal “*hunting ground*” of his fathers; but the tree, which was venerable in his earliest youth, still survives him, and preserves his memory.

tic trees and broad meadows to extend, seemingly, to the horizon?

The tradition runs thus: This beautiful valley was a favorite hunting ground of the Indians. In order that they might render it as perfect as possible for this purpose, they were in the habit, every year at the proper season, of lighting fires. These fires swept over the whole surface, and destroyed all the lesser forest growth. The

trees which survived, grew on, larger and larger every year, until at length the whole reached the condition of a great park, as it was transferred to the white man.

There are many beautiful features in the scenery of the broad state of New-York; but there is no picture of sylvan or pastoral scenery daguerreotyped in our memory, at once so fair, and so grand, as the meadow park at Geneseo.

VALUABLE NEW NATIVE FRUITS.

I. THE BRANDYWINE PEAR.

FOR a knowledge of this delicious new American pear, we are indebted to Dr. ELWOOD HARVEY, Chaddsford, Delaware county, Pa., who has sent us an abundant supply of specimens of the fruit, as well as the leaves and wood.

Among the multitude of new varieties of pears, both of foreign and native origin, which are continually presented to public notice, there are very few that really deserve general cultivation. When we say, therefore, that not one in fifty is equal to the Brandywine, we at once affirm that this new variety must be placed among the few finest American pears yet known. Although we do not think a satisfactory and final opinion can be passed upon a new pear, without several seasons' experience of its qualities, yet there are certain *infallible signs* about the Brandywine, which convince us that it is a most valuable new standard pear, not surpassed in flavor by any variety of its season.

The Brandywine ripens in Pennsylvania from the 10th to the last of August, about the same time as the Bartlett. Although it will not compare in beauty with the latter variety, since its colour more nearly

resembles that of the Brown Beurre; yet its more juicy flesh, and rich and sprightly flavor, will, we think, nearly compensate for its less brilliant complexion. It keeps well when picked from the tree, without the slightest inclination to rot at the core, (that defect of so many summer pears,) and bears transportation admirably. The following is a pomological description of the fruit:

Fruit of medium size, varying in form in different specimens from Fig. 25 to Fig. 26; though Fig. 25 appears to be the ordinary form. In all cases, the fruit tapers gradually into the *stalk*, which is fleshy at the base, and from three-fourths of an inch to an inch and a half long, and rather obliquely set. Skin smooth, dull yellowish green, much marked with russet dots and streaks, and always thickly russeted around the eye. Calyx open, composed of few segments, set in a smooth basin of moderate depth. Flesh white, very melting, full of sweet, rich and refreshing juice, with a flavor like that of the White Doyenne and Marie Louise combined. Core small, much filled up; seeds few, dark brown, often imperfect. The leaves are rather small, smooth, dark green, slightly serrate. The

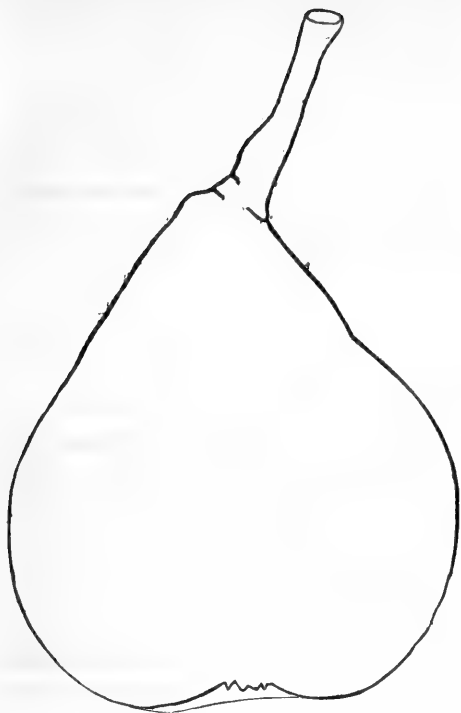


Fig. 25.

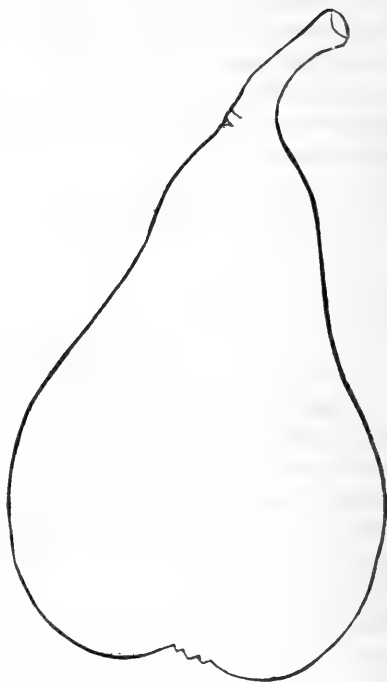


Fig. 26.

Brandywine Pears.

shoots pale olive. The tree a rapid grower, and a most abundant bearer.

From some correspondence with Dr. HARVEY, on this fruit, we extract his account of the origin and habits of this variety:—

“The original tree of this pear was found near a fence in a field on my father’s farm, (the late ELI HARVEY.) It was transplanted when quite small to a garden on the property of GEO. BRINTON, then owned by his grandfather CALEB BRINTON. This garden, on the banks of the Brandywine river, is a part of the ground on which the American army stood in the defence of our country in the battle of Brandywine; and I therefore respectfully suggest the above name as an appropriate one for the fruit.

“The tree began to bear fruit about the year 1820, and in 1835 the original trunk blew down near the surface of the ground. The present tree is a sucker, or shoot, which sprung up from the root, and has now been in bearing four or five years. If any doubt could have arisen as to its being a seedling, such is forever set at rest by the fact that this shoot sprung from a root several feet from the old stump, and bears the same kind of fruit.

“The tree is a very thrifty one, and a very rapid grower. The shoots are long and upright, forming a handsome head, which tapers upwards to a point. Fruit always perfect, and of uniform size and quality. The tree a regular, and rather an abundant

bearer. The specimens I send you are not picked ones, but a fair average sample. No trees of this pear have yet been propagated for sale. I have a few growing well on quince stock, but they have not yet fruited. Very respectfully, your friend,

"ELWOOD HARVEY.

"Chaddsford, Pa., Sept. 4, 1848."

II. THE SUMMER BELLEFLEUR* APPLE.

A capital new summer apple of the first quality, ripening from the middle of August to the middle of September. It was raised by Mr. JOHN R. COMSTOCK, a large orchardist of Washington, Dutchess county, N. Y., from a kernel of that favorite old New-York apple—the *Esopus Spitzenburgh*. Six seeds of that variety were planted by Mr. C., but this is the only fine new sort produced. It has borne now four years, producing good and regular crops *every year*. The tree is a remarkably strong, upright grower in the nursery, and forms a fine spreading head in the orchard.

The fruit bears considerable resemblance, in form and colour, to the Yellow Bellefleur, but the flavor more nearly resembles that of its parent, though the flesh is more tender than that of the *Spitzenburgh*. It is decidedly superior in flavor to the *Porter* or the *Williams' Favorite*, or any summer apple of its season, and ripens before either of these popular autumn apples. Its handsome appearance, fine quality, and most excellent habit of bearing and growth, will undoubtedly soon bring it into popular

favor as a first rate summer apple, both for the orchard and garden.* As a market fruit, it will prove extremely valuable.

Fruit rather above medium size, roundish-oblong, slightly conical, narrowing more to the eye than to the stalk, and having two or three obscure ribs. Skin smooth, fair, clear yellow, deepening from lemon to a golden colour, with rarely a faint orange blush on one side or the top, and a very few scattered greenish dots. Stalk an inch

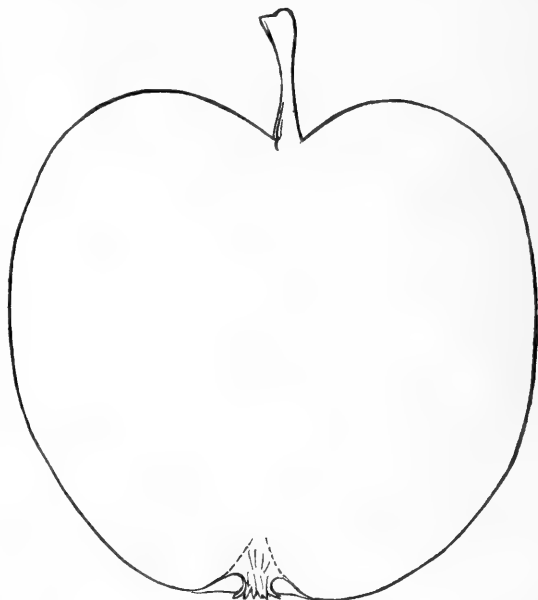


Fig. 27.—Summer Bellefleur.

long, stout at the lower end, and planted in a shallow, flattened cavity. Calyx closed, but with small reflexed segments, set in a smooth, but slightly five-sided basin. Core of moderate size, hollow, with small seeds. Flesh white, fine grained and tender, with an excellent, rich, sub-acid flavor of the first quality.

* Those of our readers who prefer the popular mode of pronunciation, may call this *Bellflower*, though Bellefleur is the correct orthography for this class of apples.

* Mr. Comstock has, we believe, propagated trees of this variety for sale.

ON TRANSPLANTING FRUIT TREES.

BY HENRY H. CRAPO, NEW-BEDFORD, MASS.

A. J. DOWNING, ESQ.—*Dear Sir:* The season for transplanting trees, and, consequently, the time for planting out fruit trees in gardens and orchards, having arrived, a word or two upon the subject may not perhaps be altogether amiss at the present time. Although great improvements, in every branch of horticulture, have been brought about within the last few years, still it must be admitted that very much remains yet to be done. And in nothing, perhaps, is this more true than in the planting out of fruit trees. Many persons seem to think that this is an absolute loss of both labor and money, inasmuch as no benefit can possibly accrue to themselves in return for either. And, acting upon this principle, they suffer the trees, planted by the hands of others, to disappear from their premises, one after another, without ever attempting to replace them. This, at least, is the fact in many of the older settled sections of New-England.

But, is it true that he who plants an orchard may not hope to live to reap its benefits? Certainly not. On the contrary, if the work be *well done*, he may reasonably hope to enjoy almost an *immediate* return. To ensure this most desirable end, however, the whole work must be well done; and herein lies the secret.

To begin, then, at the beginning, the soil for the growth of fruit trees should be selected not from the *poorest*, (as is most generally the case,) but from the *best* land which the cultivator possesses; reference, of course, being always had to the different kinds of soil and situation best adapted

for the growth of particular trees. The soil should be properly prepared and enriched, by being well manured and thoroughly worked, not merely for the space of a few feet where the tree is to stand, but the entire surface of the whole ground. Neither should the working of the soil be confined to a few inches of the surface, but should extend to the depth of at least eighteen inches; which, for the garden, may be done with a spade, but for the orchard or more extensive culture, with the common and subsoil ploughs. For this deep working, a few loads of coarse manure to the acre will not suffice. A liberal supply, in the first instance, is required that not merely a small portion, but the entire surface of the ground may be enriched to the depth of at least one foot.

Previously to setting out the trees, the ground should be repeatedly stirred to the depth already stated, and sufficient time given for the different soils to become thereby well pulverised and intermixed. When the ground is thus prepared, the trees should be selected for their health and vigor, rather than for their age and size. Upon this point a very great error prevails, at least in many places. A healthy vigorous tree, two years from the bud, will, in nine cases out of ten, make a strong bearing tree sooner than one of three times that age. The reason is very obvious, inasmuch as far less violence is done to the nature and constitution of a good young tree, by being removed from one situation to another, and perhaps a very different one, than to one that has become

more fixed and established by age. In the one case the young tree, planted with its roots and branches almost entire, very readily establishes itself, and proceeds at once to make rapid and vigorous growth; whilst in the other, the older and larger tree, having necessarily been deprived of many of its roots, requires several years to recover from the shock occasioned by its removal. The notion that the larger a tree is when planted out, the sooner it will produce fruit, is entirely erroneous. Although, perhaps, for the first year or two a few solitary specimens may be produced, yet these will hardly compensate for the loss that is sure to follow. Besides, the original cost of the older and larger trees is much greater than that of the younger and smaller ones.

If young and healthy trees are selected, and properly transplanted in soil prepared as already directed, and if they are subsequently kept free from insects, and the ground clear of weeds and occasionally cultivated, fruit may be expected in three to five or six years, according to the kind of fruit under cultivation; and in ten or twelve years productive orchards of large, vigorous trees may be obtained, from which may be derived not only the satisfaction of

beholding the work of our own hands, and enjoying the fruit of our own labors, but, to many, the no less desirable satisfaction of receiving an abundant and profitable return for a limited outlay.

These considerations, certainly, should stimulate every one who has a few acres, or even roods of land, at once to plant fruit trees; and not only from these considerations should he be induced to do so, but from the no less important one that it is the duty of all to leave, for the benefit of those who may come after them, something in return for what they have enjoyed from those who have gone before them.

Respectfully yours, HENRY H. CRAPO.

New-Bedford, Sept. 12, 1848.

P. S. In the September number of the *Horticulturist*, Mr. BARRY states that the *Onondaga* pear tree grows admirably on the quince stock. On the 15th of June last, the time my communication was written, which appeared in the August number, and to which Mr. BARRY refers, the growth of the *Onondaga* on the quince, with me, had been precisely as there stated; since which, however, my trees have done much better, and have made a fair growth. I now think that this pear may succeed upon the quince.

THE CHRYSANTHEMUM, AND ITS CULTURE.

BY GEORGE GLENNY.*

THIS plant derives its chief attraction from the particular season in which it blooms. It is showy and varied, but it has neither elegance of habit, nor symmetry of form, nor fragrance to recommend it. The most remarkable of the flowers are notorious for their deformity, and although we have now British seedling varieties coming something

nearer to a proper standard, we are far from attaining what must be the character of the plant and flower before it can be ranked among the better class of florists' flowers.

Although a Chinese plant, our English varieties will soon outnumber and excel the original, and it will be, like the *Camellia japonica*, essentially English, or, at least, European, before many years pass over our

* From the *London Hort. Mag.*

Fig. 27.—*The Chrysanthemum.*

heads. The plants are valuable, as out-of-door ornaments in mild autumns, for they succeed the dahlia; and although a very severe frost will destroy foliage and flowers, they will live through a frost which will cut off the dahlia past recovery. They are, strictly speaking, half-hardy, but their beauty is frequently spoiled just as they are commencing their bloom. The plants, if grown in the ordinary way, are too tall to be handsome, and the lower leaves wither and turn brown before the blooms come to perfection, even when the season is suitable. This can only be counteracted by means of particular culture, and we can only accomplish an improvement in the habit by carefully counteracting the general tendency of the plant to grow lanky and tall. In herbaceous borders, where the subjects are allowed to spread and throw up annually large bundles of stems, and where the general collection of masses bloom year after year in large heads, the appearance of the chrysanthemum is very showy; and in such places they are undisturbed three or four years together; but this can be hardly called cultivation,—a hundred subjects that make very striking flowers under high culture, are but rough, though showy masses of bloom, when allowed to take their own choice. The car-

nation, pink, picotee, auricula, polyanthus, primrose, hyacinth, tulip, narcissus, and many other subjects which are noble under rich and judicious growth, spread and become large masses when left a few seasons, and, however pretty in these wilderness-like borders, possess no claims to notice for their individual flowers, nor for the form of their plants: yet, propagated yearly, or separated every season, or dug up and replanted properly and periodically, they preserve a character which is as superior as it is unlike the diminutive blossoms that come in hundreds. The chrysanthemum, then, has to be looked upon in different stations; first, as a perennial herbaceous plant, in common borders, growing in masses; secondly, as a dwarf showy plant, sufficiently protected to preserve its foliage in choice clumps or flower borders; thirdly, as a pot plant, to bloom under cover, and to be removed wherever flowers are wanted.

AS HERBACEOUS PLANTS.

In all large concerns there are portions of the ground, especially distant from the dwelling, laid out as rough borders, in which herbaceous plants that require no culture are planted, to grow, spread, and bloom, year after year. Hollyhocks, Michaelmas daisies, Aaron's golden rod, perennial lupins, everlasting peas, early prim-

roses, monk's-hood, digitalis, and a hundred other plants that die down and come up again, are planted and left without any other culture than forking the borders after they begin to grow, and giving an occasional dressing of some kind of manure. The chrysanthemum ought to be among them, and form no small proportion of the whole. The yellow, primrose, white, red, brown, purple, and various other shades, may be planted in the spring. The ground ought not to be rich; vigorous growth is very much against hardiness. The plant that will live through a frost in poor ground, will perish in the same temperature if the land be rich. This has been found by the growers of brocoli. In hard winters acres have been cut off in rich ground, while that in less exciting soil has escaped. If the border is anything like good ordinary loam, it is better, merely to see that it is well drained, and plant without any dung or dressing. As the plants advance in height stakes should be placed to tie them up to, so that they may not be broken by high winds, and in due time, if frost does not intervene, they will flower the first year, though not very strong. After the bloom is fairly off, and the beauty of the plant gone, they may be cut down to within four inches of the ground, and, if the weather be very severe, and litter can be had handy, a little thrown over the herbaceous border will protect many half-hardy subjects from damage. But there are many who do not think it worth the trouble, and therefore let all things take their chance. In the spring the plants shoot up much stronger, and require the same care as to tying to stakes; but in these rough borders a single stake is generally all that is bestowed, the branches being merely tied somewhat loosely together, something like a wheat-sheaf, for the head of bloom covers all over the top, and looks best in a mass, besides being less damaged by hard weather. In this way, year after year, the plants will grow up and spread until they form huge bunches, with great masses of flowers; and, when they become too large, they may be lessened by taking some of the roots away, all round, with the plants attached to them. This may be done by chopping off with the spade; the pieces chopped off may be plant-

ed out elsewhere, or be used to make good any that are damaged or have died. The same management would apply also to all the other herbaceous plants of the kind, but our business is with the chrysanthemum.

IN POTS AS DWARF FLOWERING PLANTS.

We have already described how the cuttings are to be taken and treated up to the filling of the first pots with roots. At the time when they are turned out as we have described for the beds and clumps, when dwarfing is an object, a certain portion may be continued in pots, but they will at that period require to be shifted into other pots a size larger. Nothing more need be done than striking the edge of the pot against the potting-table, while held the wrong way upwards; the ball will leave the pot whole. The crocks need not be disturbed, but a few being placed at the bottom of the new pot, and enough earth to just cover them, the ball may be placed in whole, as deep as may be, and the soil filled in all round, up as high as the edge of the new pot; if the soil come higher up the plant than before, so much the better; a gentle watering to settle the new earth round the ball will be necessary, and they may be then placed again in their out-of-door locality, attention being paid to their occasional moisture. They will all be more or less dwarf, according to the season, but in the general way they require no other attention. We have already stated that the time to take these cuttings may be June, July, or August; some, indeed, may be taken as late as September. It would be always found that the latest struck cuttings were the most dwarf when they bloomed, but it will be sometimes found difficult to strike the latest, and this is our chief reason for striking at different seasons. There will be no difficulty in procuring cuttings from the pots or out-of-door plants, but they answer better from potted plants, because they are always forwarder. They may again fill their pots with roots, and require a shift, but they ought to bloom in thirty-two sized pots, that is, pots of thirty-two to the cast, and technically called thirty-twos, and if they fill ever so much with roots, they must not be shifted into any larger, because you rather wish to check the growth

than encourage it. In September the frost may come pretty sharply, and damage potted plants, so that about the middle of that month they should be placed in frames, and carefully closed and covered at night, on the least sign of severe weather; but if this be not expected or likely, the glass is covering enough. The latest struck cuttings may be kept under glass all through, for as they may be potted off the first time as late as the end of August, they cannot draw up much, but they ought to have all the air that can be given in mild weather and only be closed in cold winds, and of evenings towards the middle or end of September; after this period they will show their bloom-buds, and when these once appear the plants do not grow materially. If fine flowers are the object, they must not be checked with cold, and many persons make up a house full of them, and regulate the temperature with great exactness. It will, however, always be found that the less artificial heat they have, the better will be the colour of the flowers and foliage, and the latter will be retained best on the stems; which, in spite of the best management, will shrivel, turn yellow, or fall off altogether, when the plant is attempted to be forced, or, by the neglect of the watering, gets starved. It has been the custom of many nurserymen to take off cuttings as soon as they were strong enough; but the great object of taking cuttings is lost under this treatment. The plants run up nearly as tall as if they were not taken off at all, but were left to grow their full height; whereas, when their growth is half made, or even more than half, the tops have so much less to do, that they form really dwarf specimens when of the tallest kinds. Some, who appear to lose sight of the object in view, or, perhaps, never thought of it seriously, recommend cuttings to be taken in April, fancying, perhaps, they have made a great discovery, when they find that April cuttings strike more freely: but they answer no purpose, because in April they are scarcely any length, while the June, July, and August cuttings are taken from the top of shoots two feet long. Now, we will not say that the top of a shoot two feet long, that would only grow to three feet if left on, would only

grow the other foot, because fresh impulse gives vigorous growth; but they will not grow one-half the length that April cuttings would, nor be half the trouble. The flowers as they advance and begin to open, become still more susceptible of damage by frost, and the prevention of this is the only care required at this late period of their cultivation. The nurserymen put them in houses, and give them a little heat, but the object is to bring them into flower earlier than they would come otherwise, and not with any hope of bringing them finer. Those in houses will commence flowering in October and November, and continue until some unlucky frost gets to them, or they may be removed from time to time into the places their flowers may be wanted in. But the culture of chrysanthemums may be considered complete, up to the period when the buds swell, and the flowers are opening; the plants seldom grow much after that, unless they are in heat, and shaded, and this should always be avoided as much as possible, for the stems by elongating throw the leaves farther apart, and destroy the shrubby habit, which is, whether natural or artificially produced, essential to the beauty of the plant.

INCREASING THE BUSHY HABIT.

Although we may obtain from cuttings much more free growth and larger flowers, and by taking them late keep the plants very dwarf without topping, they may also be dwarfed a good deal more by topping the strong shoots, and encouraging laterals. This is resorted to chiefly for large specimens, but the small potted plants that we have been treating of may be topped as soon as they are fairly established, and the side branches grow more numerous, and get forwarder than they would otherwise. The plant becomes more bushy, but the foliage and flowers come smaller. In short, we obtain more branches and bloom, but we sacrifice size to number, and sometimes it will be found necessary to top the laterals as well, for they would grow nearly as long as the original shoot would, and we have known plants so managed difficult to bloom at all until very late in the winter. The way to manage these with the best chance of success, is to take one of the plants from the July cuttings, and as soon as it is plant-

ed out from the cutting-pot, and well established again, take off the top, leaving three inches, or if the plant be as short as that, merely pinch out the heart; as the laterals come out to the same length as the old plant was, they require to be stopped in the same manner, and in their turn will give out their laterals; and where these cross one another, or are in the way of each other, or are too thick for their general appearance, they should be removed entirely; but this may be continued so as to prevent flowering altogether, so that when the plant has become moderately bushy, all the shoots should be allowed to go up to bloom, and that without forcing, or heat of any kind, but merely protected from the weather by a frame and glass, and allowed all the air.

DWARFING LARGE SPECIMENS WITHOUT STRIKING.

We cannot prevent large plants from growing to a considerable height, but we can at least check them a third of the elevation they would acquire in an ordinary way. The pots which have contained the plants of last year are at the close of the bloom placed in winter quarters, and the plants are cut down to within a little of the soil. In the spring, when these begin to grow, they should be turned out of these pots, trimmed, the top surface of the soil taken away, pots a size larger should be procured, fresh drainage and fresh soil applied to the plants, the soil pressed well round the ball of earth, which if much bound should be loosened; the whole should be well watered to close the earth about the roots, and the pots should then be replaced in the pit or frames they were in before; these plants will in general throw up more shoots than are wanted, a selection of the strongest and best should be made after they have grown up a little, and all the lanky ones should be removed altogether. As they all advance they may be allowed to grow until the earliest cuttings are wanted, and the strongest shoots may be topped for that purpose. The length to which the shoots are shortened should be different; and in proportion to their strength the strongest should be left a good deal longer than the weakest, because they are capable of supporting the greater number

of lateral branches, but the tallest should not be more than six or eight inches high, and the weaker ones not more than half the height; they may now be put out of doors, in the same way that young plants are, in the shade a little, and watering must be attended to. These plants will be considerably shorter, and more bushy in their habit, and bear a great many more flowers. But there is no way of producing the chrysanthemum so well, so elegant, in such good colour and condition as to foliage and flower, as that of taking the tops of the shoots at different seasons, and growing them without heat.

PROPERTIES OF THE CHRYSANTHEMUM.

We expect a sort of remonstrance against the properties which we shall set down as desirable in the chrysanthemum, because the forms of the present varieties are as numerous as were those of the dahlia when the published rules first set to rest the properties of that universal favorite. There were among them at that time anemone-flowered, China-aster-flowered, globe-flowered, single, and *semi*-double, flat, starry, and ragged flowers, to say nothing of colours. In the chrysanthemum, we are told in a very recent publication, that there are the ranunculus-flowered, the incurved, the China-aster-flowered, the marigold-flowered, the clustered, and the tasselled, all of which, except the ranunculus-flowered, are untidy and flimsy. Great efforts have been made to bring these flowers into notice, and shows have been established at which the judges have not known by what rules to award the prizes, or which flower was the best. We affirm with great submission to those who pride themselves on this flower, that it is impossible to select one less fit to exhibit, cut from the plant, and that individually there is nothing to hope for in the bloom itself that should raise it to the dignity of a florist's flower; but as there is great merit in growing the plant well in pots only, and as the plant is showy when there is a scarcity of bloom in a house, they ought always to be shown in pots only, and the merits of the plant be taken into account quite as much as that of the bloom, and as such we shall notice both.

1. The plant should be dwarf, shrubby, well covered with green foliage to the bot-

tom, the leaves broad and bright, the flowers well displayed at the end of each branch, come in abundant quantity, and be well supported by the stems.

2. The flower should be round, double, high in the crown, perfect in the centre, without disk or confusion, and of the form of half a ball.

3. The individual petals should be thick, smooth, broad, circular at the ends, according with the circle of the flower, the indentations where they meet hardly perceptible.

4. The petals must not show their under sides by quilling, and should be of such firm texture as will retain them all in their places.

Size of bloom to be large in proportion to the foliage, but the size only to be considered when plants are in all other respects equal.

The properties we have described bring a good flower under one of the two classes, ranunculus-flowered, or marigold-flowered, and therefore we pronounce the tasselled, the quilled, the incurved, and all ragged and confused varieties, as well as all those which exhibit a disk, to be inferior to the other flowers in all the points in which their deficiencies can be recognised, and sincerely hope that there may in a few seasons be a sufficient number of good ones to enable us to banish them altogether as show flowers.

A FEW OF THE BEST CHRYSANTHEMUMS.

A society has at length been formed in the Metropolis for the encouragement of this autumnal visitor, and we have been gratified with a sight of chrysanthemums as large as medium-sized dahlias. The capabilities of this flower are but little known by ordinary dealers; for we have been to the advertised collections of Messrs. Chandler, said to be the best, and we are bound to say that we there saw nothing to tempt us to grow the chrysanthemum, except as an out-of-door subject to prolong the lively appearance of the garden after the dahlias are over. The lanky branches, only half furnished with discoloured leaves, even in the best we saw, rendered them very ugly in pots, and those who do not see them grown as they may be grown, will not be tempted to adopt them as a stock flower in collections. Since the properties of the chrysanthemum were laid down a

few years since, the foreigners appear to have chosen their new varieties better, and there are some approaching the standard. As a proof of the difference between well-grown and ill-grown specimens: we had made a descriptive list for the purpose of publication, from the collection at the Vauxhall Nursery, and after attending the show of the Chrysanthemum Society, held at the Rochester Castle, Stoke Newington, we threw our list into the fire; we will give a specimen of the discrepancy.

THE CLUSTERED YELLOW.—"Bright yellow, flowering in clusters, with soft quilled petals, standing out like irregular rays; these in some places thick; in others thin, so that the flower never forms a circle; hard, confused eye, with petals undeveloped; abundant bloom."

Perhaps the above description, taken honestly from scores of plants at Vauxhall, is as unjust as could be written; but it seems that the chrysanthemum, like many other subjects, wants more care than nurserymen will bestow. Clustered yellow was in all the winning stands, and there were many pots of it besides, and our description from well-grown specimens would be thus:—

CLUSTERED YELLOW.—A noble, round, bright yellow flower; very full on the face, with exceedingly good centre petals, inclined to cup, and altogether one of the best show flowers, according to the properties laid down.

GOLIAH, another grand flower, was exhibited, as large as a middling sized dahlia. The petals of this flower curl upwards and turn over inwards, showing the back of the petal, but very uniformly closing into as splendid a bloom as ever we saw, forming almost a cone, but rounded. The colour is pale, but it is darkened gradually on one side, like an apple or other fruit; the shading is so gradual though it deepens. The centre of this flower is good, though made up as it were by the curling petals meeting in the middle. We are quite within bounds in saying that Goliah was four inches across, and beautifully formed, the outline as true as a drawn circle.

TWO COLOURED INCURVED is a noble flower, the front of the petals one colour, the back another, and all the petals sufficiently

incurred to show the backs. The face is rather hollow, but it is a bright looking flower in a stand.

One of the neatest and best formed of all is ANNIE SALTER; a small flower, bright yellow, with reflexed petals, laying well, and forming two-thirds of a ball. There is nothing among the whole tribe so completely a show flower as this little pet, though it is very small compared with many favorites.

Most of the chrysanthemums in present cultivation, even the best, have curled, or, as they are called, incurred petals; generally loose and irregular; but there are a few and very few, that make up well, that is to say, that are symmetrical when full bloomed, and form a sort of half-globular flower, close enough to pass well in a stand. The publication of the names of these will give our Continental friends a good notion of what will pass current among florists; and we strongly advise all who intend to commence the cultivation of this flower, to confine themselves entirely to those we mention until they see something better, for the descriptions now publishing are altogether false, and we in vain, in a very large collection, sought for more; we proceed, however, to describe them.

CAMPESTRONI, purplish red, very full, tolerably round; a good full size, showing the dull under side of the petal by reason of its curling, the centre full of petals, but sunk.

BEAUTY is after the fashion of Goliath, but not so compact. The flower forms well, because, although the centre is thin, the

petals curl over, and make up a nice globular and somewhat rich looking flower.

KING is blush pink, curling like others, but making up into a showy, bold, round, good flower; centre pretty round, and general appearance rich.

ARISTIDES is a fine orange coloured medium sized flower, very bold and full, desirable on account of its being the best of its colour, and showable.

DEFIANCE, large white, forms a good round flower by the petals curling inwards, so that the outside of them is shown; the petals are not so thick as some, but the style is very pretty.

LUCIDUM, a blush white; made up much in the same way by the petals curling inwards; full sized, and very pretty.

FORMOSA is also a very pretty white, but not so large as some others; forms a nice globular flower, although the petals are not so full as many of the sorts.

These few are all that we should grow of the great number we have seen, and all we should recommend others to grow. There may be some new ones to come out in the season, and one especially that we at present do not know the name of, but which we mean to recommend to make up a dozen. It is of no use recommending a parcel of misshapen flowers that present no good qualities. It is wasting ground, and pots, and house room to cultivate them. As, however, there are some who may wish to buy less than a dozen, the principal object will be to judge from the above descriptions which are the best, regard being had to diversified colours.

ON REVERSE BUDDING, AND CURIOUS GROWTHS IN TREES.

BY ROBERT BALMANNO, BROOKLYN, N. Y.

SIR—When I was on a visit to England, about twelve years ago, I took occasion to make some inquiries respecting the Weeping Ash, and I observed in a nursery, near the city of Derby, the manner in which artificial trees of that species are produced.

It is effected by inserting about half a dozen buds, near the top of a young stock, reversing the usual and natural mode in which buds are inserted. That is to say, the bud is introduced upside down!

After these buds have struck, and are

beyond the chance of failure, all the shoots *below* are carefully pruned away, and the top of the tree above is cut short off, leaving the shoots, from the reversed buds, drooping downwards; and, to prevent them from turning up, which they inevitably would, by the force of the law of nature, they are kept down by means of a hoop, until the branches become firm, hard wood.

I made some inquiry of Mr. PAXTON, of Chatsworth, respecting this process, and found it had long been practiced in England.

You are, no doubt, aware that that gentleman had transplanted a weeping ash, of gigantic proportions and of the natural species, conveying it upwards of twenty miles, into the park of his patron, the DUKE OF DEVONSHIRE. It was a question for some time, with many people, whether a tree of such vast dimensions could be transplanted successfully; but,

"Heaven sent it happy dew,
Earth lent it sap anew,
Broadly to burgeon and gayly to grow."

Mr. PAXTON knew what he was about in that, as in everything else he undertakes, from the minutest flower that grows, to the loftiest tree, the largest conservatory in Europe, or the Emperor fountain, which throws up a column of water *two hundred and sixty-seven feet*,—being considerably higher than the top of the spire of Trinity church, New-York, and leaving all other fountains in the world far beneath it.

A few years ago, whilst residing at Geneva, N. Y., I budded some cherry trees in my garden, in the manner above mentioned, but being my first attempt *on trees*, (I had succeeded with other and *livelier* sorts of buds!) very few of them struck; and I left Geneva before I had fairly tested the experiment.

I spoke on the subject to Mr. PHALEN, a nurseryman in Brooklyn, N. Y., last July, who said he had tried it, and failed; as the twigs turned upwards. But, on inquiring whether he had hooped them, he admitted he had not, and that it never occurred to him. He immediately set to work, and budded some cherry stocks in the manner I recommended, and has no doubt whatever, that by *coopering* them they may be converted into weepers.

Mr. Phalen, however, showed me a species of natural weeping cherry tree, introduced by the late Mr. PARMENTIER, but I did not much admire it; the fruit was small, and sour, and the top, although inclining downwards, was rather brushy. Would it not be desirable to try the experiment on other fruits besides cherries?

My anxiety on this subject arises from a great and growing regard in favor of the fair sex; for, as they were the first who taught man to pluck, I think it is but right that we, in return for that accomplishment, should try to bring these sweet rivals of their lips into nearer proximity, and not expose our far better halves to danger by clambering up ladders, to rend or stain their dresses, and the far greater risk of a fall!

With reference to this mode of reverse budding, it *now* seems a little singular that I did not sooner recollect that line of POPE, which has become an universal proverb, almost as much as if it had been written by the son of David himself. Indeed, so scriptural does it read, that a gentleman of my acquaintance once heard the late Rev. Dr. GARDINER, of Boston, preach a most admirable sermon from it. His exordium being—"Dearly beloved, the words of my text are,

'As the twig is bent, the tree's inclin'd.'"

May I therefore be permitted to solicit your attention, and that of your readers, to this fine text, entreating them to bear it in mind and *practice* it, for those dear and fruitful vines whom they have so solemnly sworn to cherish!

Although the button-ball yields seed, it bears no fruit; yet it bears on this question, inasmuch as when I was first in Oxford, I noticed in the garden of the inner quadrangle of New College, some very singular trees of that description. The lower part of some of them sprang from the ground in one large bole, then separated into two, three, and four, uniting again into one; others had two and three stems, which soon united into one, then separated, and afterwards united a few feet higher up, presenting altogether the most fantastic and whimsical appearance of any trees I ever beheld. The gardener, a very old man, who had been acquainted with the college all his life, could give no account by what means these singularities were produced. All I could get out of him was, that they were so when he was a child, and that "the man's head who planted them never ached!"

I regret to learn that these curiosities have since been cut down; but if you should think one of them worth inserting, I herewith transmit you a drawing, which I made on the spot in August, 1821, (Fig. 28.) Above the part represented, the tree was healthy and luxuriant. There were, at the time, several equally fantastic.

I may also mention that there was lately growing in a garden in Water-street, Geneva, N. Y., a magnificent elm of very large dimensions; and at about four feet from the ground, a limb of perhaps 18 inches diameter, shot out horizontally, *even with the surface of the ground*, full 20 feet;

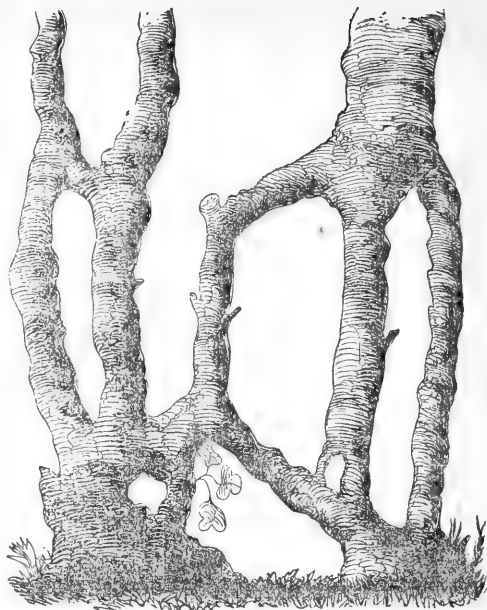


Fig. 28.—Lower part of one of the curious Sycamore Trees, in the garden of New College, Oxford.

and from that horizontal limb, two others grew up vertically, at a right angle, as straight as an arrow! Altogether, this noble tree had so singular an appearance, that I transferred it to my sketch book.

And now, I would beg leave to ask, are these two instances orthodox illustrations of the text—"As the twig is bent, the tree's inclin'd," or are they not?

ROBERT BALMANNO.

Brooklyn, L. I., Sept. 6, 1848.

.....

[The original weeping ash tree is (according to Loudon,) an accidental variety, from seed in Cambridgeshire; and trees of it, in the nurseries, are propagated by grafting in the usual manner. We have once before heard of this effect, as having been artificially produced by reverse budding; and Mr. BALMANNO's account is very interesting to the curious amateur. Ed.]

REVIEWS.

COTTAGES AND COTTAGE LIFE: *containing Plans for Country Houses, &c., with some Sketches of Life in this Country.* By C. W. ELLIOTT. Cincinnati, H. W. Derby & Co. New-York, A. S. Barnes & Co. 1 vol., 8vo., 226 pages.

THIS is the first volume on architecture from the western "Alleghania," and we hail it with pleasure, as an evidence of more than a dawning taste in rural embellishment. In a country where tens of thousands of human habitations, in some shape or other, are built every year,—where, in fact, the great business of life is to "settle" and build, in some mode or other, it is not a matter of indifference how building is performed.

It is a handsomely executed and inviting looking actavo, which comes to us from Cincinnati, intended for the assistance of those who are interested in "Cottages and Cottage Life."

The plan of the author, so far as we are able to gather it, from a perusal of his work, appears to have been rather to draw the attention of readers generally to the subject, than to furnish a careful or complete practical work on rural architecture. Only a small part of the work is, therefore, devoted to cottage architecture, strictly speaking, while the bulk of the volume is composed of sketches of country life. Perhaps, therefore, the author would have conveyed to the uninitiated public a juster idea of the character of his work if he had called it—"*Cottage Life, with Plans of Cottages.*"

These sketches of cottage life form a continuous narration of about 200 pages, and are full of spirited hits and droll allusions to many of the existing peculiarities of social and domestic life in this country; and, we suppose, are especially character-

istic of life and manners in many parts of the west.

We cannot, perhaps, give a better idea of the style of this portion of the work, which is both piquant and original, than by the following extract:—

"Yer dinner is ready, Miss Grace Ellison," said the new girl, through an opening in the door.

As the Ellisons proposed to live in the country, they had thought it best, as soon as possible, to get help there; and, in the village, near by, had found this girl, and a sort of cousin, who said he understood horses, farming, and in fact could do anything. They, also, had but recently arrived there, from what was decidedly rural, where woods and wilderness were sweetly blended.

"Bless my soul," said Mr. Seranton, as he pulled out his large watch, "half past eleven!"

He looked inquiringly at Grace.

"How is this?" said Uncle Tom.

"Perceptible unsophistication," said Ned, "on the part of some members of this family. Quite a child of nature, Grace seems to have met with; one of those sweet minglings of milk-pails and rose-bugs of which we read, eh?"

"Ned will remain quiet," said Grace, "and the rest of you will continue your conversation 'till I make a report."

She found a dinner, but it was a strange one, and strangely put on; the poor chickens lay untrussed, with wings extended, and legs aloft in helpless amazement. Two little dishes of boiled parsley flanked these, which Jemima said she was ashamed of, 'twas "so scrimpy." The fish's tail, severed from his well stuffed body, lay in his mouth, like a sweet bait, instead of bending to it, as Grace had ordered. Each knife stood erect as a horse guard, in its piece of bread. There was an evident attempt at grandeur, but it only reached the remarkable. In all difficult cases one must "compromise." Grace did so, by calling for Jemima, who had deserted the kitchen. She answered, saying—"I was baptised Jemima Jane." "Well, then, Jemima Jane, what could have induced you to get dinner at this time of day?"

"Why, law!" she replied, evidently surprised, and relieved of some anxiety respecting her cooking, "the sun's past the door-crack, and we always had dinner then, to our house; we didn't drag along, slipshod, all day."

"Well," said Grace, who saw that she was active, and meant well, "come in, and we will rearrange things."

"I cant, before all them men. I must put on my other things—slick up a little."

Grace assured her that the men were not there, and that her other things would add nothing to the festive board. She proceeded to relieve the knives

and forks from duty, and to dispose them more peacefully—to reform and right matters generally. As a young housekeeper, she was startled at this unlooked-for result, but determined to carry the war into the enemy's country,—to laugh first—when Ned, putting his head into the door, inquired, with much gravity,

“Is your breakfast nearly ready, Miss Ellison?”

At his appearance, Jemima darted away as if he were a dragon. She plainly had strange ideas about young men.

“If you will return to bed,” Grace replied, “we will serve it to you there in oriental magnificence.”

Having again recovered the skittish girl, she explained that her wish was to have had the tail of the fish brought to its head, so that it would lie in the dish.

“Law, you don't say?”

That the parsley was not to have been boiled.

“Well, now, who'd have thought?”

Upon inquiring for the mustard, Jemima said that the “nasty stuff” had been washed away. But Grace having announced to the gentlemen, that they must make it a *dejeuner* instead of a dinner, it passed along, and furnished food for laughter as well as conversation. Uncle John took occasion to mention a little supper, to which he had been invited, with half a dozen others, by the painter, Wall. Upon opening the folding doors, Wall held up his hands, exclaiming—

“This is dreadful. I ordered my ducks to be roasted and my lobster boiled, and it is just the other way!”

“Oh, that I had known that,” said the cook, an Irish woman; “for I had the devil's own work to keep the ugly thing before the fire.”

Jack, the black Newfoundland, sat by Grace's side. Dinner, even at that early hour, was no joke to him. At every pause in the conversation, he touched her arm with his rough hand, and looked away, as innocent as if he had been some other dog. Jack always dined well; to his mind, it was of consequence. Not so, however, to Mr. Ellery, who helped himself freely to the parsley, that being most convenient to him.

The conversation, as well as the dinner, had an end, if nothing more; and when Mr. Seranton and Mr. Ellery had given, the one his hearty, the other his merited adieus, Uncle Tom insinuated himself into the soft heart of the sofa; while, during the warm hours, the others addressed themselves to various occupations; Grace, strange as it may seem, to a history—a pictorial history of England.

She was old enough to find as much there as in poor stories. She loved Hampden, admired Cromwell, disliked Mary, with her lovers and cups, and detested Henry, his cruelties and his amours. Uncle John, after some time having passed, was startled from his drowse by Grace, asking—

“Why have you never married? Every jack has his jill?”

“I couldn't do it.”

“But seriously, Uncle John.”

“Seriously. I had the usual experience, and believed that this or that one was necessary to my happiness; but my caution always interfered in

time, and my conscience would not permit me to marry a poor girl.”

Grace laughed out.

“Seriously, Grace, the girls whom I knew were brought up to expect the best position, and the like—would have been unhappy without them. I should have been miserable, as the drudge who was to toil for these—as the father of children, who must go through the same dissatisfied youth which fell to my lot. I could not and would not do it; nor will I advise any one else to do it.”

“What do you think of that, Ned?” asked Grace; “are you ready to join this association of single blessed ones?”

“I shall do what the rest of you do,” he replied, quite busy at his work—perhaps to hide a little added colour.

“Not, Grace,” continued Uncle John, “that I have doubts of marriage. It is essential to the highest form of manhood and womanhood; but I think that, as to the numbers in each state, more true manliness and womanliness exist out of it than in it! These ill judged connections are wicked, and unfortunate to all concerned; and their results fill the world with weakness. A man has no more right to bring to suffering and degradation a wife and children than he has to lie.”

“What shall we all do, Uncle John?” asked Grace. “Why have you not joined the Shakers?”

“You women are much to blame—you are too willing. Somewhere I have heard of a minister who, about to marry two persons in church, said—‘Those who wish to be married will rise;’ when half the women got up in their places. And it is because they have nothing else to do, and are *fit* for nothing else—if for that.”

For some time past they had heard the voice of Jemima, in anything but dulcet strains, singing out the stirring hymn, which, commencing with—

“Where now is good old Moses?”

comes down, through saints and heroes, even to our time.

Uncle Tom was now growing restive; but, as the song increased in energy, he waked, when it burst upon him—

“He went out through tribulation,
Safe to the promised land.
By-and-by we'll go and meet him,
By-and-by will go—”

“Zounds,” said Uncle Tom, “go at once—go to the devil; anywhere but here!”

He was almost taken in the act; for the girl soon entered, and seated herself, knitting-work in hand, dressed in her best clothes. ‘Twas the way they did where she came from.

“Is John coming too?” asked Ned Lee.

“I rather guess not,” she replied. But this was the first day of Jemima Jane.

There are ten, neatly lithographed designs for pleasant rural cottages, showing elevations of the principal fronts and plans of the living-room floors. A page of ex-

planatory text accompanies each of these plates.

The following remarks, on the *grounds* of cottages, which the author makes, under the head of Landscape Gardening, will best show his method of treating practical subjects:—

“The Landscape Gardener should precede the Architect and Builder; as the best site for the house is a matter of moment. This should not be, as it seems to me, on the highest point of land, because such portions are bleak, exposed on all sides, furnish no relief, no back-ground to the building. To command a view—to have the advantage of shade, and shelter, and water—to have the barn and out-buildings near, yet not conspicuous; to permit of easy drainage from the cellar, if it is necessary; to be easy of access from the highway; these are to be considered. Should a man have it in view to build, he should at once have more or less of his planting done, both shade and fruit trees, as they will be so much in advance when he comes to live; and if he should not build, it is no loss. As far as practicable, make divisions which are *necessary* about the house of the ha-ha or blind fence, or of hedges, for which purpose the Maclura or Osage Orange is believed to be one of the most desirable plants.

“The *carriage-way* is of consequence. It is idle to say that it should in no case be straight. A fine, wide, shaded avenue is a desirable thing. But, should the distance be considerable, any person will see that it may be *monotonous*. At present, the carriage-way is allowed to take the direction which the face of the ground makes the easiest, if it does not lead too much out of the course.

“It is a sort of vexation to have the object in our eye, and be taken out of your

way to get to it. One should take care that the turns are not too sudden. The proper width of this road must vary with the size of the house and grounds, from nine to twenty feet. A depth of six inches of gravel answers for carriages and light weights; let this come up even with the turf, and be slightly rounded towards the middle. Keep the edges of the road and the walks closely mown, and rolled smooth.

“In planting upon it, a constant succession of one variety of tree, at regular distances, is also tame and uninteresting. It is desirable to introduce a variety, and to arrange them in groups, having a connection with one another; each variety of foliage and form in harmony, as in contact with the rest.

“The *foot-walks* should be four or five feet wide, and should, when practicable, lead to some object—a view—or a summer house—or a fine tree, and continue on, so that the return may be by another path. If at convenient points, rough seats are placed, it adds to their pleasures; for one *can* rest, if necessary.

“As to the *flower-beds*, it is desirable, in any place of considerable extent, to set apart a portion of ground for them; of which some of the windows of the house command a sight, and through which one might go to a graperly or a green-house. But a very beautiful way, is to cut them in circles, or other graceful shapes, upon the edges of the walks, making the soil rich and deep.

“A *group of rocks*, partially covered with creepers and flowering plants, is a pleasing object.

“*Water* is always desirable, in the distance and at hand. In very many situations, a spring, or a small stream, will supply the evaporation of a pretty sized pond, in which the lilies and water plants will

thrive. The deeper it can be made, the better."

Our extracts will give our readers an idea of the pleasure and instruction they may expect from the perusal of Mr. ELLIOTT's volume. We cordially recommend it to those who like to find the agreeable and the useful blended, and hope it may have an enduring influence on the taste of the western states.

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SCHOOL ARCHITECTURE: or contributions to the Improvement of School-Houses in the United States. By HENRY BARNARD, commissioner of schools in Rhode Island. New-York, A. S. Barnes & Co. (1 vol., 12mo., 369 pages.)

If education (in the largest sense of the word,) is the greatest boon that can be bestowed on man, and we think there can be no question raised on this point, then the best mode of imparting it, and the most favorable circumstances which may be brought to bear on its diffusion, are topics of no common interest at the present day.

Notwithstanding the large interest which is really felt in the subject of general education, in this country, in placing it within the reach of all classes to obtain, at least, the rudiments of learning, we must take shame to ourselves that so little attention has been paid to the manner of educating youth, and, more especially, to the condition of our common school-houses.

It is, therefore, with feelings no less of duty than of pleasure, that we solicit public attention to this most excellent volume on School Architecture, which, we are satisfied, will speedily become a standard work in the United States.

Mr. BARNARD is already widely known as the intelligent and indefatigable school commissioner of Rhode Island. Portions of the present work have, indeed, been previously published, and widely circulated by him in New-England. But, in the present

volume, he has brought all his information on this subject together, in a well digested and systematic form; and we have rarely met with a volume more replete with truly valuable, practical information.

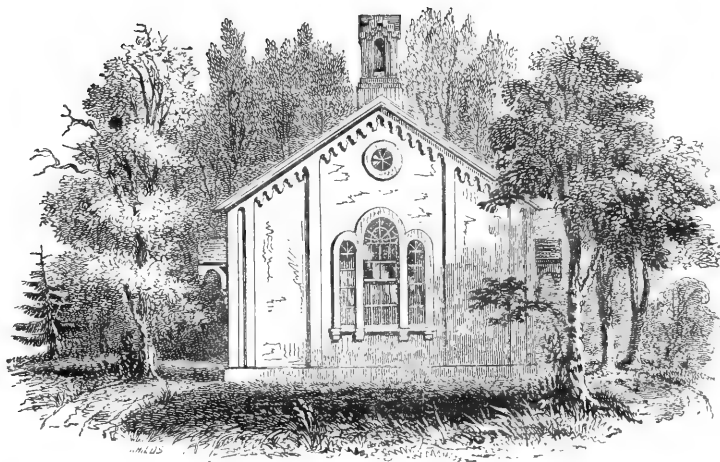
The author grasps the whole subject of school-houses in this compactly printed volume. There are, for example, designs for all the sizes of school-houses known in this country,—primary, district, grammar, intermediate, public or high, and normal schools, as well as free academies.

Plans of model school-houses by Mr. EMERSON, Dr. ALCOTT, Mr. MANN, and others, well known for their long devotion to the cause of public education, as well as a number by professional architects, are given, and thoroughly explained in the body of the work.

But these plans, numerous as they are, constitute but a small part of the utility of the work. What gratifies us quite as much, or even more, is the pains taken by the author to point out and suggest remedies for some of the crying evils in almost all the common school-houses at present existing,—evils which exert a most injurious influence on the health and the minds of pupils.

We allude especially to improved modes of *ventilation*, *warming*, and *seating* the inmates of common school-houses. A want of proper attention to the two first most important considerations is the cause of a great deal of bodily discomfort; and we have the opinion of some of the most skilful physicians in the country, for believing that a large number of the spinal distortions, of late so prevalent, owe their origin to the cramped and unsuitable seats and writing desks, to which the tender frames of pupils are confined in schools.

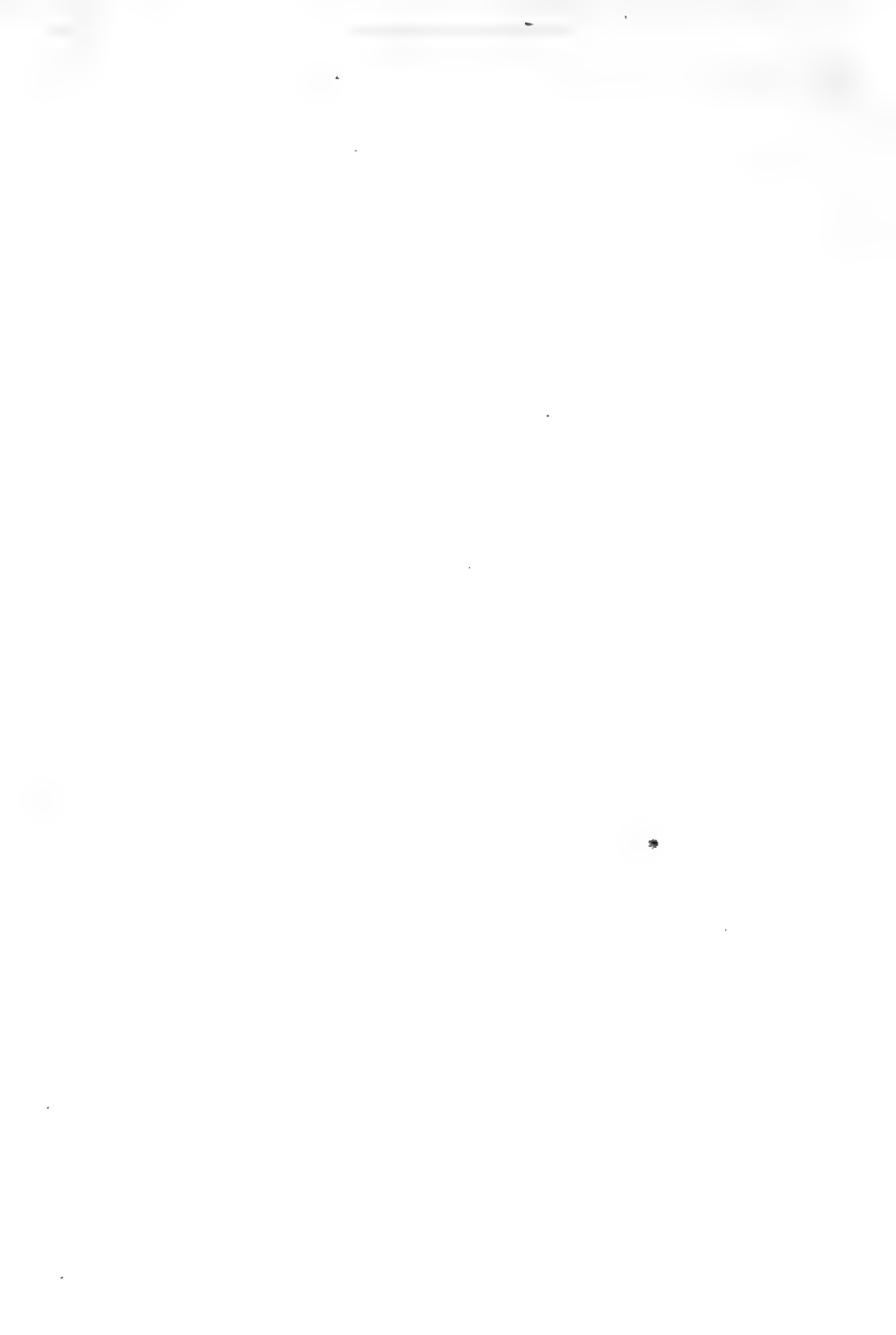
To assist in banishing these evils, Mr. BARNARD has not only very lucidly ex-



DESIGNS FOR RURAL SCHOOL-HOUSES

[From Barnard's School Architecture]

Hort. Oct. 1843.



plained the advantage of proper ventilation, but he gives diagrams and details, showing how the Boston mode of ventilation (a most excellent one,) is easily applied to all school-houses, so as effectually to prevent the possibility of the accumulation of deleterious or impure air.

The most improved forms of school-house furniture (including seats and desks,) are given, with remarks on the peculiar advantages of each.

A large and humane spirit has, it is most evident, everywhere governed the author of this volume. We find it continually directing his efforts; and, while improving everything connected with the school-house, with respect to its efficiency and fitness for the end in view, he is ever ready to sympathise warmly with the natural instincts and sufferings of youth. Thus, in speaking of the accommodation in primary schools, we find the following, among other valuable hints for the teacher's own use:—

“Little children are made to suffer, and many of them permanently, from being forced to sit long in one position, without any occupation for mind or muscles, on seats without backs, and so high that their feet cannot touch, much less, rest on the floor. Nothing but the fear of punishment, or its frequent application, can keep a live child still, under such circumstances, and even that cannot do it long. Who has not an aching remembrance of the torture of this unnatural confinement, and the burning sense of injustice, for punishment inflicted for some unavoidable manifestation of uneasiness and pain?” Even though the seats are as comfortable as can be made, young children can not and should not be kept still upon them long at a time, and never without something innocent or useful to do; and, under no circumstances, longer than twenty-five or thirty minutes in one

position, nor so long at one study, and that with frequent and free exercise in the open air. To accomplish this, great and radical changes in the views and practice of teachers, parents, and the community at large must take place. Nowhere, in the whole department of practical education, is a gradual change more needed, or should sooner be commenced.” p. 56.

Considered in point of taste, there is much to approve of in this volume. The designs given are nearly all from school-houses actually built, in various parts of the country. We suppose Mr. BARNARD has selected from the best specimens in New-England, and we are gratified to find, among his well-engraved illustrations of the exteriors of these buildings, so much to admire.

There are some half dozen designs by Mr. TEFT, an architect of Providence, which are especially worthy of commendation, as uniting rural beauty, and expression of purpose, with convenient accommodation in a high degree.* We trust those “selectmen” and “district school committees,” into whose hands this book may fall, will be guided by the spirit of these examples, rather than by that of such designs as the uncouth and ill proportioned “high school at Lowell,” page 112, hitherto the favorite style in all our large towns.

The late JAS. WADSWORTH, Esq., of Geneseo, who was heartily devoted to the cause of popular education, had 11,000 copies of that valuable work—“The School and the Schoolmaster,” printed at his own cost, and then distributed them to every school district in the state. We cannot but hope that, in addition to the interest which this work will everywhere awaken of itself,

* We owe the publishers our thanks for permission to use two of these cuts [see frontispiece,] of schools, after Mr. TEFT's designs. One of these is built at North Providence, the other at Westerly, R. I.

there should be found more men, of Mr. WADSWORTH's benevolent spirit, who would use extraordinary means of disseminating it in all parts of the country. We cannot but think that it will, wherever it becomes known, perform a service of public good of no trifling and unimportant nature. As a people, we profess to be deeply alive as to the cause of education; and thousands and

millions of dollars are spent annually, throughout the length and breadth of the country, to promote its objects. But, in order to get satisfactory results from our schools, the public must be roused to a stronger interest in, not only what the schools can *do*, but what they *are*; for the two bear much more closely on each other than is generally supposed.

FOREIGN NOTICES.

ON BURNING CLAY.—I have great pleasure in communicating what I know of the benefits of burned earth as a manure. I have used it for wheat and for root crops with decided advantage, although I have not, unfortunately, kept a statistical account of the difference; still, so obvious were the results that I have been induced to use a much larger quantity the present season, and my neighbors are following my example. It was used at the rate of 1000 bushels per acre on a wheat field sown with clover, leaving the middle of the field undone. The benefit was striking, not only in the wheat, but in the young clover. The whole of the field had been top manured with guano, harrowed in with the seed. Where the burned earth was not used, the clover plants and the wheat were inferior.

It may be proper to explain that it was not turfy earth full of vegetable matter, but a poor, cold, argillaceous, tenacious clay, such as is used for making bricks, yellow in colour, but becoming when burned a pale red or orange: the interior of some of the largest lumps being black or carbonaceous (I presume the small quantity of vegetable matter concentrates there); occasionally this soil contains a fair proportion of round pebbles.

The mode of raising and burning is this—a strip of land is broken up in very dry weather with Ransome's Y. L. plow, drawn by three strong horses abreast, and a Scotch equilibrium whippetree. So great is the resistance that it requires two men to hold the handles of the plow to counteract the leverage of the horses. The earth is thus broken, or I may say torn up in immense rough masses or clods as much as a man can carry, which are admirably adapted to form walls and supports for the mass of fire. By this means heaps of nearly 200 solid yards may be readily burned. The earth being plowed up, the fires are formed on the spot, the workmen placing a certain quantity of dried stumps or wood of sufficient solidity to maintain a body of heat, and enclosing the mass with large clods. These are carried by hand; subsequently, as they get more distant from the fire, a barrow is used, and beyond that a one-horse cart.

It is important to have the sides of the heap as

upright as possible—not conical—because the heat always makes for the highest place. An important point in burning is to supply the fire sufficiently fast to prevent its burning through, and yet avoid overlaying it, which might exclude all air, and put it out. Practice will indicate the medium. When the fire shows a tendency to break through, the outside of the burning mass is raked down, and more earth added.

If the ground is very dry, and no rain falls, the men are obliged to feed the fire almost continually night and day; but when there is moisture, it may be left for five or six hours, but seldom longer. Something depends on the current of air. A strong wind would blow the fire from one side and out at the other. This is guarded against by placing hurdles interlaced with straw as a guard to windward. The size of a heap is limited by the height to which a man can throw up the soil, and of course the diameter must be proportioned to the height, to prevent its slipping down. It is generally lighted so as to burn out by Saturday, and not require Sunday attendance. This mode of burning may be essentially called summer burning, because we find practically that heavy rains put out the fires, or check their progress. Where fuel is abundant, or coal cheap, I have reason to believe fires may be kept up through the winter. I have this autumn plowed up, or rather broken up, and burned four acres of a poor rye-grass lea. This has produced 1600 cubic yards, 1000 of which I have carted on to the neighboring fields, leaving 150 yards per acre on the field itself as a compensation. The cost per 100 cubic yards is as follows:—

Labor and burning at 5d.,	£2 3 4
Fire-wood at 4s. 6d. per fathom,, ...	0 8 4
Plowing and horse labor,	0 8 3
Carting and spreading according to distance.	

When spread, as there are many large lumps, we roll the field with Crosskill's clod-crusher in a dry time. This pulverises the burned earth, and we then bush-harrow to distribute it equally. Our young clover so treated promises well. As the portion of ground on which the fire is made is generally burned six inches below the surface, it is proper to dig it out and spread it around, otherwise so

rank will be the corn crop there, that in spite of two or three flaggings, it is almost sure to go down and spoil. I find burned earth exceedingly useful for clamping potatoes, Swedes, Mangold, &c.; but it is essential to allow roots to remain in a heap covered with straw three or four weeks previous to doing this, or they are apt to heat and rot, especially early raised potatoes. The reasons why earth burned must be beneficial are sufficiently explained by Drs. Liebig and Playfair. Of its cheapness as a manure there can be no question, for whilst it only costs 7d. a cubic yard on the spot, the mere cartage of London dung from our nearest port would be 2s. per cubic yard, nearly four times the cost of the earth itself. It is much to be wished that tenants had permission to cut down all old pollard trees, burning them on the spot with earth close at hand. Such pollards when carted home seldom clear 1s. each, after deducting expenses, whilst it is to be feared they damage the growing crops annually to that extent at least. I should say that at 5d. per yard my men average (including occasional night-work) about 15s. or 16s. per week in dry weather. *J. J. Mechi. Eng. Agricultural Soc. Journal.*

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BONE DUST A GOOD MANURE FOR SHRUBS.—A day or two ago, I was remarking on the great growth of the shrubbery of a clergyman in this neighborhood, (lately deceased,) and expressing my astonishment at the luxuriance which the shrubs had attained in a short space of time since they were planted. The person said that the clergyman had told him that "he had superintended the planting himself, and that he had put a handful of bone dust under every tree and shrub, (which amount to some thousands,) and to which alone he attributed the great growth they had made." I planted about 700 ornamental shrubs and trees myself, about the same time; and although I spared no trouble or expense in my work, (having drained and thoroughly trenched, and made my ground so that I could easily thrust a stick full $2\frac{1}{2}$ feet deep in good open soil, and also superintended myself every tree and shrub planted, for which I am now amply rewarded by the great growth and beauty of the entire shrubbery, which is the admiration of every one who sees it;) still, I think that my shrubs are full a good year's growth, in point of size, behind those to which I allude, which had bone dust used with them, and with equal advantage as to soil and situation also. And I should state that mine are nearly double the size of some of my neighbors, planted about the same time. Now, as I intend planting to some extent in September, I have ventured to trouble you with this, to ask your opinion as to the advantages of using bone dust, or any other material likely to accelerate the growth of shrubs; and to ask you to state which is the most desirable way of using it; whether it should be put under the roots, or thrown in amongst them while planting, or mixed up with the top soil after the planting is completed. *A Subscriber.* [There is no doubt about the advantages of bones dissolved in acid; we have frequently recommended super-phosphate of lime, which is the same thing.] *Gard. Chron.*

EFFECTS OF STOPPING AND THINNING.—Scarcely an annual exists, which usually dies at the close of the season, after ripening its seed, but may be made to retain a vigorous existence if its inflorescence be removed as soon as formed. Mignonette is a very familiar example, for this may be allowed to bloom; but if its flower stalks be cut down before its seed vessels are perfected, it becomes woody and shrubby, and will live and bloom for three or more successive years. If allowed to ripen its seed, it dies the same year. The common nasturtium is an annual; but the double nasturtium has become a perennial, because its flowers, deprived of the faculty of producing seeds, do not exhaust the plant; and it is probable that every annual, rendered double by cultivation, will become a perennial.

This explains why fruit trees are weakened, or rendered temporarily unproductive, and even killed, by being allowed to ripen too large a crop of fruit; or to over-bear themselves, as it is emphatically termed by the gardener. The thinning of fruit is, consequently, one of the most important operations of the garden, though one of the last generally practiced. On the weaker branches of the nectarine and peach, an average space of nine inches should be left between each brace of fruit; and on the most vigorous wood of the most healthy trees, they should not be nearer than six inches. This enforcement of the importance of thinning fruit is not intended to be confined to the two trees specified; it is equally important to be attended to in all other fruit bearers; but especially the vine, apricot, apple, and pear. It should be done with a bold, fearless hand; and the perfection of that which is allowed to remain will amply reward the grower in the harvest time for the apparent sacrifice now made. But he will not reap his reward only in this year; for the trees thus kept unweakened by over-production, will be able to ripen their wood, and deposit that store of inspissated sap in their vessels, so absolutely necessary for their fruitfulness next season. *Johnson's Principles of Gardening.*

....

ROSE INSECTS—I have made a discovery during the last week, which I think must be useful to all who grow roses extensively. I have long kept my rose trees quite clear of green fly and spring vermin by using a mixture, the receipt of which was communicated to my employer by Mr. PAUL, the well known nurseryman and rose grower of Cheshunt. The recipe is this:—to 12 gallons of cold water add 1 bushel of soot, and about half a peck of unslaked lime; stir and mix. Let the mixture stand for 24 hours. The soot will have come to the surface; skim it off. It may be afterwards used several times. Syringe the roses with it from a hand syringe or a garden engine.

But though this mixture is perfectly efficient during the spring, yet, about this time of the year, an enemy appears on whom it has no effect. This is a small white grub, with a scaly brown head, the scales of which are of a surprising hardness and strength. It destroys the fleshy part of the leaves, leaving them skeletons of fibres, not unlike fine lace. Though curious, these destroyed leaves are in a mass unsightly. I need hardly add, that

this premature destruction of the leaves seriously injures the health and strength of the plant. I have, till lately, been quite unable to get rid of this pest by any other method than the laborious one of picking them off by hand, which, in large collections, is all but impracticable. The lime and soot mixture, tobacco-water, snuff, sulphur, I have all tried in vain. I find, however, that by adding 1 lb. of soft soap to the 12 gallons of lime and soot water, this grub is effectually and quickly destroyed. The soft soap should be dissolved in warm water before it is added to the other ingredients. *Wm. Cornell. Gard. Chronicle.*

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TOP DRESSINGS OR MULCHING.—Few persons are fully aware of the immense importance of top dressings. To regard them as merely warding off drouth is to take a very superficial view of the affair; their merits may, I think, be classed as follows: 1st. They may be made capable of transmitting a vast amount of food to a suffering tree in a very speedy way. 2d. They retain a steady permanency of moisture, in spite of adverse circumstances, without stagnation. 3d. They are the cause of a series of annual fibres, which are of much importance to tender trees. 4th. By means of such, continued systematically, trees may be planted in shallower soils than without them; this tends to the production of much better ripened wood. 5th. If a check is needed through rampant growth, or the total absence of fruit, the removal of the dressing in summer will supersede the necessity of root pruning.

With regard to the first point, I may observe, that it frequently becomes necessary during dry periods to apply water to trees in full bearing; indeed many a good crop is lost or stunted for want of a timely application of this needful element. Nevertheless, somewhat depends on the temperature of the water. Cold spring water, applied in considerable quantities to the naked soil, may do more harm than good. It is far better to make use of the mulching as a medium, and to water it in a successive way.

To proceed with the second consideration. No person who has used top dressings will doubt their influence in retaining a permanency of moisture, in defiance of long continued hot weather. By this medium, a vast amount of nutritious moisture, which would be otherwise dissipated, is reserved for absorption by the upper series of fibrous roots.

In the third place, top dressings, in almost all cases, excite to the production of abundance of surface fibres of a permanent character, produced in a regular annual series. These are most important organs in several respects, which I will attempt to show in the sequel. In the meantime, I would merely point to one particular circumstance of paramount importance; they tend, in no small degree, to prevent the formation of tap roots, which are notorious as being inimical to the production of blossom buds.

As to the fourth consideration—the systematic application of top dressings, as obviating the necessity for deep borders, which are but to apt to lead the roots to a depth beyond the agencies of the atmosphere, and to render the tree uncontrollable, I

can only say that the question has been a growing one during the last seven years, and that owing to the free discussion of the points connected therewith much improvement has taken place, not only in vine borders but in those for other fruits. It is a pretty well attested fact, that the shallower the root the earlier and more profound the ripening period. This idea may of course be carried too far, and trees may be driven from Seyflia to Charybdis; but the great evil of the old system having been over-excitement, through deep and rich borders, it becomes a duty for awhile, I conceive, to point to an opposite course. By the systematic application of such, I merely mean that the application of an annual top dressing, however slight, is antieipated by this system.

Our fifth point refers to the facility afforded by this mode of cultivation for checking undue luxuriance. This will seldom occur where top dressings are resorted to in a systematic way. Still in the event of trees thus circumstanced becoming too gross in the young shoots, the mere removal of the top dressing in early summer will go far towards taming the tree, unless it has formed some tap-roots of most inveterate character.

Having now disposed of the five main points, which form, as I conceive, the principal features in a system of top dressing, as applied to somewhat shallower borders than were originally in use, I would now beg to offer a few remarks on the propriety of securing a permanency of moisture at the root of certain plants. Everybody must be aware that many plants of this habit cannot be successfully cultivated without securing a certain amount of moisture at the root, of a permanent character. The most prominent amongst these are the Black Currant, the raspberry, and, I may add, the quince, amongst fruit bearing shrubs; and celery and lettuce amongst our culinary vegetables. It so happens that this latter question is interwoven in some degree with the top dressing affair, at least under my mode of cultivation. Last year the Black Currants in this part of the kingdom were subjected to the most severe blight I ever remember; they were devoured by aphides; the leaves were almost entirely stripped from the trees, and the fruit were of course either cast to the ground or withered prematurely. Drouth at a certain period was, I am persuaded, the cause of all this; for it ought to be generally known that the Black Currant has a greater tendency to produce surface roots than any other fruit tree; this, of course, renders it very susceptible of atmospheric changes, and points at once to a special mode of culture. However, I considered that there could not possibly be a crop in the next season. Having some alterations this spring which brought to hand a surplus of soil, I covered the surface of the Black Currant roots five inches in thickness with this soil. We have had a very fine crop, and the soil is now filled with fibres. The Black Currant should, I think, be planted in sunken trenches or panels at least nine inches below the ground level; in fact, similar to celery, and in that event would bear a top dressing of mere leaves or litter of any kind every year, applied immediately after a wet period in the spring. Raspberries are so fond of a permanency of moisture

that they thrive to admiration in a bog under some trees, within a short distance of where I write. Indeed, our soil being sandy, I could not obtain full crops until I adopted an annual system of top dressings. In applying this my practice is to remove a couple of inches of the surface soil with a draw hoe in December; then to apply a couple of inches of compost, and finally a coating of soil, to prevent loss by desiccation. I never dig over the surface of these things, but use the spade full depth to within a reasonable distance, generally cutting a little off the extreme points of the roots annually; this encourages the surface roots, and has a tendency to check superfluous spray at the same time that steady growth is ensured, through the medium of the top dressings, and sudden vicissitudes of drouth obviated. There is undoubtedly much waste of manure in many cases, extra quantities being often applied when perhaps mere permanency of moisture at certain periods is the desideratum. Of what use would any given amount of manure be to the Black Currant or celery crop, if the plant is to be subjected to a continual lack of moisture? *Robert Errington. Oulton Park, July 10. Gard. Chron.*

PROPAGATION OF PINKS, CARNATIONS, AND PICOTEES.—Although the finer varieties of these beautiful flowers require great care in their cultivation, and will often disappoint the amateur, their great beauty will yet insure the patience and skill necessary for their successful growth. I yesterday saw a handful of carnations in a friend's hand, and wondered that efforts are not made to grow them in greater profusion. Many are disgusted with the losses which occur from bad management in their first attempts to get a collection, and give up the pursuit; but this is not wise. A season or two will make the grower more skilful and fortunate. Seeing these flowers advertised, an amateur orders a lot, and pays perhaps 2*l.* or 3*l.* for a dozen pairs. These come probably from a distance, not in pots, as they ought to do, but with their roots exposed, and before they can be placed in a safe position they have suffered much injury. A wet season then comes on, and the young plants, not being strongly rooted, rot in the ground. If they escape this catastrophe, they often throw up only a miserable flower, unworthy of notice; no *grass*, as the offsets are technically called, is produced; and sometimes the original plants will turn yellow and die. When, after all his trouble, the would-be grower finds his dozen pairs reduced to about half the number, he despairs of becoming an adept in the art of flowering these plants, and retreats, leaving the field to more fortunate, because more patient, rivals. Now, try another season at all events, and, without incurring fresh expense, propagate from the stronger varieties which yet survive; in this way you will advance more confidently, and at length overcome difficulties which arise from want of experience more than from any peculiarities inherent in the flowers.

Common pinks and carnations are increased easily by cuttings taken off at a hard, well developed joint, and planted in a shady situation in the garden; if under a hand-glass, success is more sure. But we have known great quantities rooted without that

aid, by being preserved for a few days from the sun, and kept moist. The soil should be sandy, and the cuttings fixed in it, so that it shall press firmly upon the cut portion. But this plan will not do for finer sorts of carnations and picotees, and the safer way is to propagate these by layering. So many directions have been given for the performance of this operation, that anything further on the subject may appear to be superfluous; but as amateurs are yearly rising up and commencing their apprenticeship, such information must be continually renewed. The principle of layering is to enable a cutting to take root without its connection with the parent plant being quite dis severed, on the plan in which inarching and similar operations are performed. A cutting often dies, because, from some cause inherent in itself, or external to it, its power of elaborating sap is not strong enough to enable it to form roots; and this power is increased and rendered certain in a layer, because it derives its juices from the parent plant. An incision is made upwards at a joint, to the extent of about half an inch, and a section of the stalk or stem is thus presented, similar to the portion inserted in the soil in the case of a cutting, only it is half the substance or thickness. This cut portion is then firmly inserted in fine soil, and fastened securely with a peg. The layer then forms roots from two sources; from its own vital mechanism, as in the case of a cutting, and from the assistance derived from the original plant, of which it still forms a part. When rooted the layer is cut off and potted, and henceforth its growth is self-sustained and independent.

Where a great number of young shoots are available for propagation, a very gentle heat should be created by means of a bed of leaves or cut grass, on which a small frame should be placed. Sandy soil must then be put in, to the depth of six inches, and the cuttings, with all their leaves, firmly fixed as directed above. The glass being put on, the frame should be kept close for a week, and shaded for a day or two; and solar light being gradually admitted, the young plants will form roots more rapidly than in the open ground. Extremes of drouth and moisture must be carefully avoided, since the one will rot the plants at the cutting, and the other will cause the soil to contract and leave the cutting bare. Failures must be expected at first, but soon as great a certainty will characterize these operations as most others. This is the proper time for pursuing either of the above methods. *H. B. Gard. Chron.*

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DAHLIAS.—These fine ornaments of large gardens are now beginning to flower, and require some attention, to ensure good blooms and a healthy growth. Some cultivators prune extensively, so as to have only one leading stem, and but few laterals, until the plant has attained a good height. That only one shoot should be trained in the early management of the dahlia is doubtless the best treatment, but to what extent laterals should be suppressed is an affair of taste, which the amateur must regulate for himself. The plan recommended in the Calendar of the *Chronicle* is the best for making the most of a dahlia, and displaying its

luxuriance to greatest advantage; that is, to tie up the laterals to smaller stakes arranged symmetrically around the central one. Let the sticks and the tying material both be trustworthy, for the dahlia has to stand very rough weather when it is in the finest state of bloom, and its being prostrated by the wind is a misfortune to be averted by all means. The plants should be looked over every day, that tying may be attended to before an ungainly growth takes place.

Dahlias will not bloom well unless a degree of moisture is kept up at the root; and sedulous attention to this is indispensable. Many fine flowers are stunted in their growth, and deformed in their bloom, because the soil is too dry. Constant watering being attended with trouble, and also being undesirable, because it washes the best properties of the compost beyond the range of the roots, it is strongly recommended to mulch the surface to about nine inches all round the plant. I last week put the mowings of the lawn to this use, laying on a thick stratum of grass round each dahlia. Previous to this being done the soil must be thoroughly soaked, and one such watering will last for a week, although without the mulching, one dry day would render the operation again necessary. Having arranged my grass coverings in good order, I was much pleased with the plan, and thought it improved the appearance of the dahlias; but this satisfaction did not last long, for the next morning I found every little heap scattered in all directions by the claws and beaks of birds, who appear to have left all other pursuits, in order to revel in my handyworks. I found therefore that one labor led on to another, and I collected the grass again with a rake, and fenced each mulching with brushwood laid over it, and fastened into the soil. This must be done, or neatness is at an end, and it must be done effectually too; for I find wherever there is a gap in my inclosures, the birds trespass and drag out the grass. I expect they find insects sheltered in my mulchings, and that this is the cause of their pertinacious efforts to undo my works.

These mulchings should be kept moist, and this can be done by sprinkling a little water daily from the rose of a watering-pot. This is necessary to keep the soil beneath equally wet, and also to prevent earwigs and other insects from lodging in the grass. Earwigs and woodlice hate a wet situation, and are always found in the driest places; hence, the wet state of the grass will prevent their stopping among it. Earwigs are the worst enemies of dahlias, feeding on the young and undeveloped petals of the flowers, as every amateur knows to his abundant vexation. Perhaps the best trap is a small flower-pot at the top of the stake, for these insects seem to have a strong propensity to ascend as high as they can for a lodging. This *attic* taste may be turned to good account by the gardener, and the pots will be found occupied every morning by the enemies he is in search of. As the movement of the pot arouses them and makes them fall, and thus escape, I put a piece of brown paper in each pot, crumpled up, so as to retain its place when the pot is removed. In searching for them a board should be carried with you, or else when you unfold the paper they will get away, if this is

done on the walk or the lawn. A lady not liking such a mode of killing as treading with the foot, may be allowed the more refined method of taking with her a China vessel, with water, into which the paper parcels may discharge their cargo. I killed many thousands last year in this way. In my neighborhood earwigs are more than usually abundant, rendering watchfulness highly necessary. A little diluted cow-dung may be applied once a fortnight, and all decaying flowers should be cut off. These contain earwigs, which must not be allowed to run away. *H. B. Gard. Chron.*

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CARNATIONS—I will thank you to say to what causes the running of the carnation is attributable, other than freshness and excess of manure (supposing stable dung the kind used.) In 1845 a number of carnations and picotees bloomed fairly with me in the open ground, except Yeomanson's Triumphant, crimson bizarre, which was very much run and ill shaped. In 1846 the layers from this flower did not blow; they were grown in pots. In 1847 layers from these again were grown in pots, in compost of loam and leaf-mould, equal parts, with the addition of a half part stable dung, and a little sand and gypsum. They bloomed extremely well, both in shape and colour, while many others, grown in the same compost, and treated like them, ran. This year my carnations are growing in the open ground, in what had been a border containing principally herbaceous plants; this was trenched in the last autumn (just before the layers were planted in it,) 2 feet deep, and a little fresh soil, and a very little old manure added. It was top-dressed with an inch of very old horse manure this spring, and occasionally watered with very weak manure water, as recommended in page 35 of the "Gardeners' Almanac." The aspect is south; the flower garden is a perfect horizontal bit of table land on the side of a hill, and extremely warm. The plants were unprotected from rain, sun, or frost the entire year. Now, the layers taken from the plants of Yeomanson's Triumphant that bloomed so well last year, are this year all run (10 plants.) as well as a number of other carnations, and this in the very slightly manured bed that I have just described. The garden is well drained. Would you say at the same time what the best compost is for potting carnations and picotees in for blooming, making a difference, if such is necessary, between that for varieties apt to run, and that for others. *Dianthus*. [It is evident from our correspondent's own showing that his plants have been too highly manured. The compost of 1847 was much nearer the mark. We do not recommend liquid manure applied at an early stage of the growth. It is best given when the colour can be ascertained to be correct by raising the point of the pod. We think that the bed which was trenched two feet deep, and fresh soil and old manure added at planting time, and then top-dressed in spring with an inch deep of old horse manure—the plants being watered with liquid manure—would be too rich; and we fear our correspondent, in following the advice of the almanack he refers to, has been misled. A most excellent compost for carnations and picotees is 2 parts rotten turfy loam, 2 parts leaf-mould, 1 part rotten horse-dung,

1 part sharp river sand; mixed and well incorporated at least 12 months previous to using.] *Gardeners' Chron.*

CELERY.—Horticultural shows have introduced the fashion of growing celery to an enormous size, and if the amateur wishes to be a successful competitor he must follow in the train of other candidates. But this custom is vicious, and ought not to be tolerated, for such gigantic specimens of vegetable growth are seldom good, and certainly never so acceptable on the table as those of moderate dimensions. A stick of celery 4 feet long and 4 inches in diameter may astonish by the attention necessary to raise it, but few would enjoy the taste of it so much as that of a smaller one. Besides, the eatable portion is often very small, not larger, indeed, than that of a stick of diminutive proportions; all the rest is nothing worth, and consequently the energies expended on its growth are wasted. What the gardener should aim at is a succession of celery free from a rank or earthy taste, free from toughness or stringiness, and of good color. Most persons will be found to prefer that which is of medium size, as possessing these properties in the greatest degree.

Most gardeners sow a little seed in a hot bed frame, to secure an early crop. The plants are pricked out as soon as possible, and when large enough are transferred to the trenches. But very early celery is not so esteemed as the main crop, which comes into use in the late autumn and winter months; and for this purpose, a seed bed in a warm situation in the open air is all that is needed. We have had a plentiful supply of celery from a bed about a yard square, the young seedlings being thinned out until the bed contained about 324 plants, that is, each plant having two square inches to grow in. These may be either transplanted into a nursery bed, as is commonly done, the tap root being removed previously; or they may be at once removed to the trenches. By the latter mode time and labor are spared, and the celery is quite as fine. Amateurs who work in their own gardens will often find that the established modes of doing things often rest more on custom than reason, and may be advantageously departed from.

Celery trenches should be about 12 inches deep in ordinary soils, and at the bottom a good supply of well rotted manure may be incorporated with the mould. Care must be taken that no coarse manures are put in, for the celery will imbibe a taste from the matters it is grown in. Leaf-mould is perhaps preferable to any other compost, and by it the finest flavor will be secured. If the trenches are 18 inches wide, two rows may be put in, and much space will thus be economised. We always put two rows in a trench ourselves, and find the plan as advantageous for the plants as any other, besides the saving of time in moulding up. In one garden under our observation the plants are put in six or a dozen in a row, and when earthed up present a compact mass. This process of moulding up must be performed gradually, a little at a time, and we have found it useful to throw in some lime or ashes at each operation to correct the ravages of worms and slugs. H. B.—*The Gardener's Chronicle*.

PRESERVING CURRANT JUICE.—England is almost the only country where a refreshing beverage can rarely be obtained, and yet fruits adapted to this purpose grow there most luxuriantly; namely, the currant, raspberry, &c. The following is the way currant juice can be kept without the expense of sugar. Pick any quantity of red or white currants from the stalk, place them in open jars, and put these jars in a pan of cold water; heat the water to boiling, and until the currants are quite soft; leave them to cool gradually. When cold, squeeze the juice out through a coarse cloth or sieve; replace the juice only in jars, and boil it again gradually as before. When perfectly cold, bottle in half-pint bottles, to be well corked and kept in a cellar. N. B.—Take care not to let the water get to the currants. If not too much squeezed the pulp may be reboiled with coarse sugar to serve for tarts. Every one who has been in France knows how exquisite sirop de groseille framboise is on a hot day—that is made with sugar and some raspberry, added to the currant, and is of course more expensive. 4, *Alpha-place*.—*Id.*

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COLOGNE, JULY 4, 1848.—As an Englishman, fancying that we are the gardeners of the world, you may judge my surprise on visiting the garden of Mr. Koch, which is situated in the midst of this city, to find ourselves fairly beaten. This gentleman, who is a silk manufacturer, devotes his entire time to his garden, and may be said to live in it, so passionately fond is he of his flowers. He showed me at one *coup d'œil* 30,000 Camellias, of which he possesses 700 varieties. After walking through a splendid avenue of Magnolia trees, we came to several beds of Tree Pæonies of 14 years' growth, consisting of 120 varieties, and at the end of the path was a fine specimen of the Pawlownia imperialis. The Azalea beds were no less remarkable, containing 300 varieties, and under glass were 15,000 Cacti. To produce these varieties he has an apiary of 400 hives, which yield 1200 lbs. of honey annually; and by the system pursued by him, the bees are never destroyed. To visit this gentleman's garden in the month of May, would be a treat for your travelling readers, who may be pleased to know that such a garden is to be seen, and is willingly shown by its polite owner.—*Id.*

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PROPAGATION OF THE HOLLYHOCK.—Of late years the hollyhock has assumed a prominent place in the flower garden, especially in the south of Scotland, and as this plant is very ornamental, both for the garden and the shrubbery, I send you the mode of propagating it, which I have found to be very successful, and at the same time very simple. In the month of July, or beginning of August, take a stem of the sort you wish to increase, and having divided that into lengths of two inches each cut, including an eye or bud, slice the stem through the middle and pare the central pith entirely out, so as to prevent rotting, leaving about three inches of the leaf-stalk remaining at the bud, in the manner of fruit budding; having prepared a little sandy soil suitable for striking cuttings, these buds are to be inserted therein horizontally, about one inch be-

low the surface, the leaf-stalk protruding as an index of position; a hand glass is then put over them, and in a few weeks they form nice little plants,

like the current year's seedlings, and flower luxuriantly the following season, if properly treated.—*J. B. Wier, Galashiels, July 14.—Ib.*

DOMESTIC NOTICES.

THE NATIONAL POMOLOGICAL CONVENTION AT NEW-YORK.—This convention is likely to be the most important and interesting one, in a horticultural point of view, ever held in America. We learn that a large number of delegates have already been appointed by the various leading horticultural and agricultural societies throughout the country; and that the delegations embrace many of the most experienced and distinguished cultivators throughout the Union.

A very large collection of fruits will be taken to the convention, not only of new or rare sorts for exhibition, but of old ones, from various parts of the country, for comparison.

Preparations are making for a more systematic review of the fruits and fruit culture of the United States than has hitherto been attempted; and from the names of those who have taken an active interest in the matter, which are already reported to the American Institute, we look forward with great interest to the result of their labors.

The convention meets at Judson's Hotel, Broadway, on the 10th of October.

THE MASSACHUSETTS HORTICULTURAL SHOW.—This was the greatest effort ever made by the Boston Society. Finding at their last annual exhibition, that their own Hall was not large enough by half to hold all the contributions of the members, they very wisely this season took Faneuil Hall—one of the largest public rooms in the country. The choice was a wise one. The old Hall was beautifully and tastefully decorated for the occasion—the galleries filled with a grove of large exotics and evergreens—the columns tastefully hung with wreaths. Among these decorations were conspicuously seen the names of distinguished horticulturists; at the head of the hall, those of WILDER, VOSE, COOK, DEARBORN, BRADLEE, LOWELL, and LYMAN, now or formerly presidents of the society—while on the spaces between the columns, on the other three sides, were the names of LINNEUS, DECANDOLLE, DOUGLASS, PLUMIER, MICHAUX, LOUDON, DUHAMEL, KNIGHT, VAN MONS, PRINCE, FESSENDEN, LOWELL, BUEL, and MANNING.

On the western wall, were the following mottoes: "*Your voiceless lips, O flowers, are living Preachers.*" and on a pendant, "*The breath of Orchards big with bending fruits.*" On the eastern wall, was the following:

"O friendly to the best pursuits of man,
Friendly to thought, to virtue, and to peace."

On either side of this couplet was another, from HORACE SMITH's beautiful ode—

"Each floral bell, tolling its perfume, makes Sabbath in the fields;
and as a companion to it, on the right—"

"In flowers and blossoms we are wont to trace
Emblems of women's loveliness and grace."

In short, as the *Boston Transcript* happily expresses it, "Old Faneuil Hall looked like

"A bower of Roses by Bendamore's stream."

On entering, the display of fruit was almost overwhelming, by its quantity, quality, and variety. It seemed as if even Faneuil Hall is not large enough to serve as a cornucopia for these zealous eastern cultivators. Strangers from all parts of the country held up their heads in astonishment, first at its enormous quantity—then at the wonderful variety—and lastly at the individual perfection of the fruits shown. It was, no doubt, the finest show of fruit ever seen in America.

We have not time, at the late hour at which this goes to press, to go into details. They will appear next month in the society's official report. We will only notice the truly magnificent foreign grapes of G. R. RUSSEL, Esq., of West Cambridge, by far the finest we ever saw—the basket of Seckel pears, (as large as Doyennes,) from Mrs. ADAMS, of Roxbury—the prize basket of fruit, a wonderfully handsome arrangement, by OTIS JOHNSON, Esq., of Lynn. Our attention was also especially arrested by specimens of some of the old pears, of unusual size and beauty, from the garden of Col. WILDER, of Dorchester, and Mr. WASHBURN, of Plymouth, grown by the aid of *special manures*, (bone dust and iron,) from trees that formerly only gave cracked and blighted specimens.

We noticed that Mr. Manning, of Salem, had two hundred and fifty varieties of pears, and one hundred and eighty of apples. The President of the society, Col. Wilder, had two hundred varieties of pears, besides other fruits. Mr. Walker, of Roxbury, had a hundred varieties of pears, and many other gentlemen exhibited large quantities of fruit and of flowers, which will be noticed more at length hereafter.

The committee on Grapes have awarded the following prizes:—to G. R. Russell, for the best five varieties, the first premium of \$15; to Thomas Needham the second premium of \$10, for the best three varieties; to J. F. Allen the third premium of \$7, for the best two varieties; to Nahum Stetson the fourth premium of \$5, for the best one variety. They also recommended a gratuity of \$15 to J. F. Allen, for his extensive collection of

grapes, many of which are of a new kind; and to Otis Johnson, B. Emerson, and James Arnold, each the Society's medal of \$5, for their well-grown specimens.

The Committee on Pears have awarded prizes as follows:—To S. Walker, for the best 12 varieties, 12 specimens each, the first premium; to Hovey & Co. the second premium; to J. Lowell the third premium; and they recommended a gratuity of a gold medal, or a piece of plate of the value of \$25, to Marshall P. Wilder, President of the Society, and a gratuity of the like value to Robert Maning, of Salem, for their extensive collection and new varieties; also premiums to Mrs. James Adams, for a dish of Seckels, and to Samuel Pond, for a dish of Dix pears.

The Committee on apples awarded for the best 12 varieties of 12 specimens each, the Society's plate, valued at \$25, to J. L. F. Warren; the second to Messrs. Hyde, \$10; the third to Elbridge Tufts, \$5. Also, a gratuity to B. V. French of the Society's plate or medal, valued at \$25, for the largest collection; to George Pierce \$6 for the best basket of Porter apples, and to J. Stickney the second best, being the Hubbardston Nonsuch, \$4. The Committee recommend gratuities or medals, worth \$5 each, for beautiful specimens, to James Eustis, A. D. Weld, Anson Dexter, Hovey & Co., A. D. Williams & Son, R. Manning, and A. Hall.

GEN. HAND PLUM.—We have received specimens, in good order, of this American plum, so much talked of, and so little known to pomologists, from ELI PARRY, of Lancaster, Pa.

It is a magnificent fruit, averaging, we should judge, larger than the Washington, and quite distinct from all other sorts. We shall publish an accurate description of it, and will, therefore, only remark now that it is a roundish oval fruit, measuring from 6 to 7 inches round, of a deep golden yellow colour, with a much longer stalk than the Washington. The flavor is, we think, not equal to that of the latter fruit; but as we learn that it is a much greater bearer, its size and beauty will, no doubt, make it a popular variety.

PEAR SEEDLINGS.—Many individuals, after making two or three unsuccessful attempts to raise pear seedlings in this country, have given up the thing as utterly hopeless, at the same time venting the severest maledictions against our soil and climate, than which there is not a more propitious one on the face of the globe. But it is possible to raise pear seedlings, and that much superior to foreign stocks. I have been in the habit, for the last thirty years, of growing large quantities of different kinds of seedlings, in a great variety of soils, with more or less success, and have, therefore, had opportunity of observing the soil in which they thrive best.

In my first attempt, I merely gave a heavy top-dressing of well rotted manure. This I found would answer very well for all but pears; they would

grow vigorously for about two months and then stop, frequently losing their foliage; of course, it was several years before they were sufficiently large to transplant in the nursery rows for budding. Having remarked that the seedlings in the deep humus soil of my city garden grew very luxuriantly, I concluded that my want of success in the country was entirely attributable to the shallowness of the top soil. I therefore adopted another method, which I have since pursued with great success. I first make a deep trench with the plough, and finish to the required depth with the spade—two feet—not less, if you would have seedlings that will average twenty inches the first year. Now, for the compost used to fill up the trench, which I consider the great desideratum, after all: to half a peck iron filings, or cinders from the blacksmith shop, add half a peck of leached lime, half a peck leached hard wood ashes, and a peck each of muck from the swamp, and well rotted barnyard manure. These should be pulverized and well incorporated with one bushel of soil, in which the seedlings are to be grown. If these directions are strictly followed, you will have such plants as will make our foreign neighbors look a little astonished. *R. Schenectady, N. Y., September, 1848.*

TESTED FRUITS.—I have fruited the *Early Tilton* Peach here, this season, and think it will sustain a high character.

We here consider the *Rostiezer* the best summer pear. Truly your friend, *Geo. Jaques. Worcester, Mass., September, 8, 1848.*

INFLUENCE OF THE STOCK UPON THE GRAFT.—If you think the following remarks worthy of a place in your journal, they are at your service:

Six years ago I planted peach stones of late kinds, and budded them the same season with various kinds. This season I noticed that the early kinds were a week later in ripening, than the same fruit on the trees from which the buds were taken, the soil and situation being much the same. This led me to make further observations. I sold a parcel of trees to a farmer three years ago, which I had budded upon stocks raised from stones, of late and early peaches. In a row of Oldmixon Clings, I noticed one tree which seemed to have greener fruit than the rest, and which, in fact, ripened about eight days after the others; my having taken the last peach off of the late tree but a few days since. This I would have attributed to some mistake in the trees, and thought the tree was one of a similar kind, but later, had I not superintended the planting myself.

A neighbor of mine has buds on two trees of the Red Magnum Bonum Plum, which bore this year; he called me in one day, wishing to hear my opinion of the difference in the time of ripening, which would have, indeed, puzzled me, had I not been wide awake on that subject; but to leave no doubt that they were the same kind, he declared to me that he took the buds off the same twig, and budded them at the same time,—thus putting it out of the question to have been of different varieties. On examination, I found the one tree [stock] was the Mirabolan, [Cherry Plum,] which is one of the ear-

liest plums we have; the other, a late prune, which is quite plenty in this vicinity, mostly producing its like from seed. I have some of the fruit in my house now. The buds upon the Mirabolan ripened their fruit just ten days before those on the late prune. I could not vouch for their being the same, did not the foliage show it, and also my eating of the fruit at different periods ten days apart.

From these observations I have concluded hereafter to collect my early peach and plum stones separately, and mark them in planting, so as to bud early kinds upon early stocks, and late upon late, instead of having them mixed as heretofore. I have now a large number of early peach and plum stones collected, for this autumn planting. Query; if the earliest peach stones were selected and budded from the earliest ripening twigs, of the earliest kinds, could we not, in a few successions of the same, have earlier peaches than we do? Yours respectfully, *S. Miller. Union Nurseries, Lebanon, Pa., September 8th, 1848.*

[Our own observations lead us to believe, also, that the nature of the stock exerts a decided influence, not only on the season of ripening, but the keeping qualities of grafted fruits. Ed.]

.....
POMOLOGICAL CONVENTION AT BUFFALO. This convention, called together through the exertions of the officers of the N. Y. State Agricultural Society, and of the Horticultural Society of Buffalo, assembled on the first ultimo, and extended its sessions through the 2d and 4th, occupying three days in all. Fear had been entertained that at so early a season, but few fruits would be collected; a large number, however, were received from several different states, and among them many varieties ripening so early as to be usually excluded from our autumnal exhibitions. In other respects, the convention may be regarded as a very successful effort, and has resulted in the interchange of much valuable information.

Among the principal contributors were noticed the following:—Robert Manning, Salem, Mass.; Charles Downing and A. J. Downing, Newburgh, N. Y.; F. W. Hayes, Newark, and Thomas Hancock, Burlington, N. J.; David Thomas, Aurora, W. R. Smith, Macedon, and Ellwanger, Barry & Rowe, and Bissell, Hooker & Sloane, Rochester, Benj. Hodge, and A. Bryant and Sons, Buffalo, N. Y.; F. R. Elliot, Cleveland, Ohio; George Andrews, Montreal; James Dougall, Amherstburgh, C. W.; A. C. Hubbard, Detroit; all of whom presented large and interesting collections. Charles Hamilton, of Canterbury, Orange county, N. Y., sent to the convention a large and very fine assortment of plums; and several other smaller collections were received, among which were those of J. W. Bailey, of Plattsburgh; L. F. Allen, Black Rock; N. Goodsell, Greece, N. Y., and others. The most interesting and important varieties in these collections, were taken up, and occupied the time of the convention during its several sittings.

The number of delegates in attendance was between fifty and sixty,—from the States of Massa-

chusetts, Vermont, Connecticut, New Jersey, New-York, Pennsylvania, Ohio, Michigan, Indiana, Illinois, Wisconsin and Missouri, and from the two provinces of Canada—fourteen states and provinces in all. The convention was organized by the appointment of DAVID THOMAS, of Aurora, N. Y., as President, three secretaries and ten Vice-Presidents, from as many different states and provinces. A set of rules, for the government of its deliberations, was adopted by the convention, the substance of which was as follows:—The most perishable fruits to be examined first, and to be brought to the notice of the convention by a committee appointed for that purpose—one variety to be examined at a time, and comparisons made from different specimens present;—members allowed to state facts only in the briefest manner. Discussions on special subjects to be allowed during evenings and intervals, at which no one to speak more than ten minutes, nor twice on the same subject. The pomological rules adopted by the New York State Agricultural Society, were also adopted by the Convention. Committees were subsequently appointed to examine and report on the seedling or new fruits present.

Among the more active members who participated in the discussions, were Thomas Hancock, and F. W. Hayes, N. J.; Wm. R. Prince, Flushing; Charles Downing, Newburgh; Dr. H. Wendell, Albany; P. Barr, J. W. Bissell, and N. Goodsell, Rochester; B. Hodge and W. R. Coppock, Buffalo; J. J. Thomas, Macedon; L. F. Allen, Black Rock; all in New-York; F. R. Elliott, Cleveland, and H. H. Coit, Euclid, Ohio; J. D. G. Nelson, Fort Wayne, Indiana; J. C. Holmes, Detroit, A. T. Prouty, Kalamazoo, Mich.; J. A. Kennicutt, Chicago, Ill.; Thomas Allen, St. Louis, Mo.; C. Beadle, St. Catharines, and James Dougall, Amherstburgh, C. W.

With a single exception of a fruit convention, held last year at Columbus, for the State of Ohio only, this appears to have been the first attempt of the kind ever made in this country. It was of course to be expected that in so untrodden a path, some time would be consumed in settling preliminaries, and in adopting the best mode of action. Difficulties existed, perhaps inseparably connected with a convention of this nature, which occasioned some confusion, and which are well worthy the attention of those having the control of future meetings of this kind. In all deliberative bodies, it is absolutely essential to preserve order. But specimens must be selected from large collections while the discussions are going on—and if members are to speak *understandingly* of these, they must “*cut and try*.” If fifty delegates are present, it evidently becomes a matter of extreme difficulty to prevent noise and confusion—more especially if they give way to the strong temptation to converse with each other, instead of always addressing the chair. We know of but one way to prevent effec-

tually this evil, where the convention may consist of more than ten or twelve persons, although an energetic chairman, by constant effort, may do much to lessen it. This is to devote one room to the exhibition of the fruits, and another to the use of the delegates. The fruit room, during the hours of session, only to be entered by a committee of selection, who are to be well acquainted with what is on hand, and single varieties, selected from all the different collections when they are to be found, presented at a time to the convention. The specimens, if practicable, should be sufficiently numerous to enable each member to taste, and should be placed on accessible tables for this purpose. No provision of this kind was made at Buffalo, and the consequence was, that those who had loud and clear voices usually made themselves heard by the reporter, even at those more noisy periods when a dozen were engaged in examinations and private conversation at once. The discussions, and statements of facts, were, to fruit cultivators, in the highest degree interesting. Some of the conclusions reached we give below:—

PEACHES.—Early Barnard.—A good, very hardy, and productive peach, known in many parts of Western New-York, under the name of Yellow Alberge, and in some instances as Yellow Rareripe, but quite distinct from either, and much superior to the European Alberge.

Coolidge's Favorite. Late specimens were presented, and it was decided by all who are acquainted with it, to be first rate in quality.

Jaques' Rareripe, (one of the largest yellow peaches known,) was unanimously recommended as "a fine, large Early peach, but not of the highest quality in flavor." Nearly the same verdict was given in relation to

Crawford's Early, a remarkably showy variety, specimens of which were presented, measuring nine and a-half inches in circumference, with a statement by F. R. Elliott, of Cleveland, that he had measured some the present season *eleven inches* in circumference.

Haines' Early Red, from different sources, was considered by a part of the delegates, as identical with the Honest John, or Large Early York of New Jersey, while others regarded it as distinct; but all voted it a first rate variety.

The Early Malden peach, a new seedling, was presented by James Dougall, of Amherstburgh, C. W., having been kept two weeks in ice. It promises to be an acquisition of the highest value. It is of good size, red, very free from the stone, of excellent flavor, the leaves glandular, and it ripens about the time of the serrated Early York and Early Tillotson. It has borne three years.

The Snow peach was decided to be a first rate variety for preserving, but the convention was divided as to its other merits, some regarding it as first rate, and others as only second rate, for the table.

The White Imperial, received a unanimous vote, as the Oldmixon Free, and the Large Early York, of N. Jersey, as fruits of the first quality.

The Royal George Peach was decided to be unworthy of general cultivation, on account chiefly of the mildew of its leaves and branches.

NECTARINES.—James Dougall, of C. W., presented specimens of the Large Early Violet nectarine, a rare variety, distinguished by its superior size from the common Early Violet, and of fine quality.

The Downton nectarine, from A. J. Downing, which has so high a reputation for excellence, proved to be of the very highest character.

PEARS.—The following eight varieties received the unanimous vote of the convention as pears of the first quality, and worthy of general cultivation:

Dearborn's Seedling,	Bartlett,
Tyson,	Louise Bonne of Jersey,
Rostiezer,	Beurre d'Aremberg,
Golden Bilboa,	Glout Moreau.

Dearborn's Seedling was commended, not only on account of its high flavor, but for its uniform excellence in all places and under all circumstances, although its quality is diminished when it overbears, to which it is liable.

The Tyson, fine specimens of which were sent to the convention by W. R. Smith, of Macedon, N. Y., was placed among the best summer pears. It was decided by the Philadelphia Horticultural Society, to be superior to Dearborn's Seedling.

Stevens' Genesee, was pronounced, nearly unanimously, to be among first rate pears;

Beurre d'Aumalis, as second rate in flavor, but worthy of cultivation in large collections on account of its size, fairness, productiveness, and free growth;

The Andrews, as nearly first rate;

The Marie Louise, for general cultivation, but not unanimously;

The Cushing, as second rate;

The Bezi de la Motte, and Julienne, as unworthy of general cultivation.

The Washington, although according to the statement of Thomas Hancock, decided at Philadelphia to be superior to Dearborn's Seedling, was pronounced by the convention to be not fully first rate.

The Bloodgood was voted to be one of the best summer pears. On light soils it was found to be invariably fine, but several statements were made to the convention where its flavor had proved inferior on heavy soils, while others were given, where on such soils it had been excellent.

The Brown Beurre and Orange Bergamot were pronounced unworthy of cultivation.

A specimen was presented by Dr. H. Wendell, of Albany, which excited great interest, and which was believed to be the genuine Beurre Spence. The tree had been received as such, four

years ago, from Thomas Rivers, of Sawbridge-worth, England; the fruit was wholly different from any other variety known, and although unripe, had a very promising appearance.

PLUMS.—The following varieties of the plum were decided to be first rate:—

Purple Favorite,	Jefferson,
Red Gage,	Bleecker's Gage,
Washington,	Red Diaper,
Green Gage,	Coe's Golden Drop.
Imperial Gage,	

La Royal and Smith's Orleans, were recommended as nearly first rate. White Magnum Bonum or Yellow Egg, first rate for the kitchen, and third rate as a table fruit. Diamond, as third rate.

[A notice of the examination of apples we are compelled to defer till next number.]

In the evening of the last day of the convention, an address was given before the Buffalo Horticultural Society and the delegates in attendance, by DAVID THOMAS, President of the Convention. It was deeply interesting and of a highly practical nature, richly illustrated from the mature observations and long experience of the speaker. As this address is to be published, we may notice it more fully on a future occasion.

The following evening, a large audience assembled to hear an address from GEN. DEARBORN, of Massachusetts, formerly President of the Massachusetts Horticultural Society. The address was wholly extemporaneous, and was what was to be expected from his distinguished talents and eloquence. The progress of Society, from its rudest forms, and in the earliest ages, through the various gradations to the most refined civilization, was vividly traced; the early history of this progress in our own country was given; a picture of Buffalo was presented, as it was when visited by the speaker thirty-five years ago, when only *ten* buildings stood on the ground now occupied by 45 thousand inhabitants, and its entire commerce consisting of three batteaux; the rapid progress of horticulture of late years was shown, and the fact stated that more had been attained during the last five years, than in all the previous period since the settlement of the country. At Boston, where within the age of middle-aged men, the more common apples, pears and plums, were only raised, there are now establishments embracing more than a thousand different bearing varieties, and which send their products into all the different states of the Union, and to nearly every country of Europe. The exalted nature of horticultural pursuits, and the high perfection of civilization indicated by their cultivation, were strongly exhibited, with its influence in promoting the arts of peace, domestic enjoyment and freedom.—*J. J. T., Macedon, 8 mo.*

HORTICULTURAL AGENCY.—We would direct the notice of those of our readers who are interested, to Mr. SHEPPARD's advertisement, in this number. We are able to speak with confidence of Mr.

S.'s ability and integrity in all business of this kind that may be intrusted to his care, and recommend him to those in the interior engaged in importing or shipping trees or plants, or who wish commissions, relating in any way to gardening, executed in New-York.

ANNUAL EXHIBITION OF N. Y. STATE AGRICULTURAL SOCIETY—*Horticultural Department.*

—The arrangements for the exhibition of HORTICULTURAL PRODUCTS, were commodious and excellent. A large elliptical tent, 80 feet wide, and 120 feet long, was devoted to this purpose. Around its whole interior circumference, extended a line of four terraced shelves or tables, covered with white muslin, and edged at each terrace with evergreens. The whole distance round, these were loaded with handsomely arranged specimens of fruit, from several different states of the Union. A railing, 4 feet off, covered with white muslin, and with a dense evergreen lining, protected these fruits from the passing crowd. Within this railing, was a broad passage for spectators. Still, within the passage, were semi-elliptical tables heavily loaded with vegetables of large, and some of really mammoth growth, from a great number of contributors. These tables, occupied an aggregate length of more than 100 feet, very densely covered. In the centre of the tent was an exceedingly rich and chaste evergreen temple, octagonal in form, on a green massive base. It was 17 feet in diameter, and 22 feet high, and its interior was decorated with a fine statue of Flora. For the arrangement and execution of the ornamental part of the interior of the great tent, the public are indebted largely to the excellent taste, energy and perseverance of the ladies of Buffalo.

Between this temple and the entrance passages on either side, were tables covered with a brilliant display of flowers, arranged in great variety. We noticed a beautiful moss basket, densely filled with a rich admixture of fruits; a splendid parterre of dahlias; and a massive vase on a green pedestal, containing a pyramid of flowers nearly 6 feet high, the whole being 9 feet in height, all from B. HODGE, of Buffalo. A. BRYANT & SONS, of the same place, occupied a part of the tables with large collections of flowers, including a pyramid 6 feet high. An extensive collection of cut flowers, in vials and hand vases, was exhibited by ELLWANGER, BARRY & ROWE, of Rochester; their display of dahlias was particularly fine, and contained many brilliant, rich and rare varieties. Four square moss baskets, filled with parterres of roses, dahlias and verbenas, and a large number of green-house plants were furnished by WM. WEBB, of Buffalo. An artificial evergreen support of flowers, somewhat in the form of a tree, the arms terminating with brilliant bouquets of flowers, was also presented by Mr. WEBB. A number of smaller collections were noticed, and one especially from E. T. T. MARTIN, of Owasco, containing some fine and rare sorts.

Among the contributors of fruits, were ELLIOT & CO., Cleveland, Ohio; ELLWANGER, BARRY & ROWE, Rochester; A. BRYANT & SONS, and B. HODGE, Buffalo; JAMES DOUGALL, Amherstburgh, J. C. HOLMES and HIBBARD & DAVIS, Detroit, all

of whom exhibited large miscellaneous collections. GEORGE ANDREWS of Montreal, presented a very extensive collection of apples, mostly of European origin, with some of the celebrated Canadian varieties, beautifully arranged and divided on the display. We noticed, also, a large collection of apples, and ferret terrace tables into early, middle, and late. A few fine peaches, from L. FAY of Portland, Chautauque county, N. Y.; some very choice peaches, plums and pears, from H. G. DICKERSON of Lyons; Hawley and other apples, from E. C. FROST of Chemung county, N. Y.; a branch of Oswego Beurre, 2 feet long, loaded with near a half peck of fruit, with several other fine sorts, from J. W. P. ALLEN, of Oswego; splendid baskets of Crawford's Early Peach, from JAS. M. WHITNEY, of Rochester, an admirable fruit for public exhibitions, for although not of the highest quality, its great size, and rich and showy appearance excited universal admiration in those who have only the privilege of feasting their eyes. Among the spectators, no fruit attracted more attention than the showy and monstrous Alexander Apple, found in several collections and humorously known as "*Alexander the Great*," but possessing little real merit, though producing a total eclipse of smaller and better varieties. One of the best and largest collections of peaches, was from BISELL, HOOKER & SLOANE, of Rochester. But the largest collection by far, which appeared upon the tables, though perhaps not the most numerous in varieties, was that presented by the Cleveland Horticultural Society, furnished by 17 different contributors, and occupying 70 feet of the circumference of the great Tent. *Cultivator*.

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HORTICULTURAL SOCIETY OF THE VALLEY OF GENESSEE.—The fall exhibition of the Society of the Valley of the Genessee, took place yesterday afternoon at Minerva Hall. There was a very fair display of apples, pears, and fruits generally, though the collection was much smaller than it should have been. The number of contributions of flowers was perhaps greater than formerly; one entire table through the centre of the room, and another at the end, being occupied by them. This department, considering the lateness of the season, was fairly represented.

The display of vegetables answered very well. There were some mammoth beans, cucumbers and beets, onions that would draw tears upon any desirable occasion, carrots, squashes and celery that looked well, but would no doubt taste better, and cabbages that would make a Dutchman laugh. Melons of the finest flavor, though few in number, here and there attracted attention. John Donnallan, of Greece, was on hand with a large variety of vegetables.

In the way of fruits, the display was small. We have not room to give a full list of the exhibitors, but selected only those that happened to come under our eye in a hasty visit. L. A. WARD, several varieties finely flavored peaches, pears and apples. Ellwanger, Barry & Rowe, some very desirable varieties. A plate of very large Orange Quinces, by J. W. Seward. A basket of the same by Mrs. M. Jewett. Large Hawley Apples by M.

B. Seward. John Donnallan, of Greece, several varieties of apples. H. N. Langworthy, of the same town, seedling and early Melocoton Peaches. Holland Pippins by S. H. Ainsworth, of West Bloomfield. Pound Sweeting, very large, by G. C. Gillett. J. Frazer, several varieties of apples and peaches. G. W. Currier, several bunches fine Catawba Grapes. J. J. Thomas, Macedon, some late or autumn strawberry apples. H. Hooker, several varieties of apples, some large and fine. M. G. Warner, very large Isabella and Catawba Grapes. Bissell, Hooker & Sloane, varieties of peaches, apples, grapes, &c.

The flowers looked well. J. J. Thomas, of Macedon, presented 19 varieties of autumnal roses. Mrs. P. Barry, several varieties of flowers in a moss basket. Miss Harriet E. and Miss Francis A. Burbank, collections tastefully arranged. Mrs. L. A. Ward, a fine display. Mrs. S. G. Crane, a beautiful collection of annuals, &c. Mrs. John Williams, a large variety of dahlias, and other flowers, neatly grouped. Wm. King, a great variety of dahlias, &c., tastefully arranged. Mrs. J. W. Bissell, a fine display of different kinds. The Mount Hope Gardens sent in a lot of their finest. Mrs. E. F. Smith, fine vase of flowers of various kinds. Mrs. E. Rapalje, two varieties of coxcombs, the largest we have ever seen. Mrs. Henry Billing, a neatly arranged collection. L. Withereil presented a *rooster*, constructed of nearly 100 varieties of wild flowers, very skillfully put together. A. Fahnestock, a pyramid of wild flowers, highly creditable. *Rochester D. Adv.*

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COLUMBUS HORTICULTURAL SOCIETY.—The 4th Annual Exhibition of the Columbus Horticultural Society was held in the Representatives' Hall in the State Capitol, on Tuesday and Wednesday, the 5th and 6th days of September, 1848.

Of *Fruits*, Mr. Lafayette Lasell exhibited 103 varieties of apples and 24 of pears; Dr. A. H. Lasell 6 varieties of apples and 1 pear, and a variety of vegetables; Mrs. Bela Latham, 39 varieties of apples, and 5 of grapes; Mr. F. Stewart, 26 of apples and 2 of peaches; Mr. A. Sites, 9 of peaches, 5 of plums, and 2 of grapes; Mr. S. McClelland, 8 of peaches and 1 of grapes; Dr. I. G. Jones, 4 of peaches, 2 of pears, 2 of plums, and 2 of grapes; Mrs. L. Kilbourne, 3 of peaches, and 3 of grapes; Mr. William Merion, 11 of apples and 1 of peach; Mr. John Miller, 4 of peaches, 4 of grapes, and apples and plums; Mr. John Burr, 6 of pears and grapes; Mr. B. Comstock, 5 of apples; Mr. R. W. McCoy, 4 of grapes, with a great number of others, in smaller lots.

Flowers, &c.—The exhibition of cut roses was very fine, and many of them truly magnificent. The largest collection was from Mr. A. B. Butles, and comprised 8 varieties of Remontants; 21 of Bourbons; 21 of Noisettes; 24 of China, 23 of Tea, &c. &c. By Mr. John Burr, 21 varieties of roses, some of them very superb. From Mrs. Doherty, 15 varieties, very fine.

Bouquets.—Very splendid bouquets of roses and cut flowers were received from Mrs. Joel Butles, Mrs. John Burr, Mrs. Wm. A. Platt, Miss Mather, Miss Anna Lucas, Miss Medary, Mrs. R. W. McCoy,

Mrs. L. Heyl, and others. The Secretary regrets that a complete list of bouquets presented was not taken, and he is therefore unable to give the names of the donors.

From Mrs. Medbery, a splendid assortment of dahlias; from Miss E. S. Sites, a very beautiful floral design; from Miss Margaret Sullivan, and Mr. A. B. Butles, fine bouquets of native flowers.

The specimens, without an exception, were of the finest quality of fruit, flowers and vegetables, and reflect the highest credit upon the taste and enterprise of those engaged in their cultivation.

The thanks of the Society are due and cordially tendered to all who sent in specimens, and aided in making the Fair attractive, and worthy of the attention of the public. Also, to the numerous visitors for their patronage and liberal encouragement at the sales of fruit, &c. &c.

ALEX. E. GLENN, *Rec. Sec'y.*

MONTREAL HORTICULTURAL SOCIETY.—The exhibition of fruit, flowers and vegetables, so anxiously expected, came off on Wednesday afternoon, Sept. 13, in the grounds of Mr. John Torrance, St. Antoine street. The weather, though a little chilly, was very fine, and the exhibition attracted an immense crowd of visitors. We must say that we were quite surprised, not only at the immense quantities and varieties of the different horticultural and floricultural products brought for exhibition, but at their extreme fineness and beauty. They were a positive proof, if one were needed, of what can be done by skill and science, in counteracting the disadvantages of climate. This is particularly conspicuous in the fruit and flowers. We saw a monster pumpkin, weighing 218 lbs., which particularly attracted our attention; there were many others of pretty nearly equal size, which came, we were told, from the gardens of Messrs. M. J. Hays and A. Macdonell. In fact, all the kitchen garden vegetables exhibited were of the very first class, and elicited great admiration from those persons who understand such matters. The fruit was also very fine, and of great many varieties.

His Excellency the Governor-General, with the Countess of Elgin, visited the exhibition, and appeared much gratified. The beautiful band of the 19th regiment was kindly permitted to attend, and gratified the visitors with the performance of some most exquisite airs. The grounds were very tastefully decorated for the occasion, and nothing was omitted that could contribute to the pleasure of the numerous visitors. We are informed that the attendance during the day amounted to upwards of 4,000—six hundred dollars are said to have been taken at the door. A most ingenious method of increasing the receipts was also got up. We allude to the "Floral Bazaar," which was surrounded during the whole day with admiring crowds of all the "exquisites." Whether it was the sweet odor of the bouquets there exposed for sale, or the attractions thrown out by

the fair venders, we are unable to say, but this much we can, that the proceeds of the sales amounted to upwards of forty dollars. Premiums to the amount of about \$130 were awarded.—*Mont. Cour.*

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ANSWER TO J. BURR'S INQUIRY.—In August, 1846, I sent Mr. BURR an order and remittance for strawberries, and received *five varieties, all dead*. In October, ensuing, I renewed the order, and received the same *five varieties, all alive*. On the 13th September, 1847, Mr. S. D. FOOT sent an order for the *other four varieties*, which Mr. Burr forwarded by express, as per invoice now before me, dated October 30th, 1847. As Mr. Burr states, in your last number, that "*some of the kinds were not disposed of by him till last spring*," "*and then not to me or any of my neighbors*," he can explain the above most singular discrepancy between his present statement and the *sufficient proof of the contrary*, in his own hand writing, now in my possession. Respectfully yours, *Wm. R. Prince. Flushington, September 13, 1848.*

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PREMIUM FOR SHADE TREES.—We observe, with much pleasure, among the premiums offered this year by the Chicago Horticultural Society, a prize of twenty dollars, in plate, to the person "who shall plant and bring forward in the public street the best twenty shade trees;" the prize to be awarded three years hence.

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SPECIMENS OF NEW FRUITS.—We have to thank our kind correspondents for a large number of samples of new fruits, received since our last. We shall be able to give some notice.

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THE CINCINNATI STRAWBERRY REPORT.—*A. J. Downing, Esq.*:—A copy of the accompanying article, was sent, at the time of its date, by mail, to a friend in Boston, to present to Mr. HOVEY for publication. This did not come to hand; a second copy was immediately forwarded, which Mr. H. promised should appear in his next number. The third number of his magazine, since the article was handed to him, is received, and neither the article nor any explanation appears. The presumption is, it is designed not to publish it. Justice to the Horticultural public, as well as to myself, requires its publication; and although much time has elapsed since the cause for it occurred, the propriety of correcting Mr. Hovey's misrepresentations has not lessened. May I ask of you, then, a place for it in the next number of your excellent *Horticulturist*, and much oblige, very respectfully, yours, *A. H. Ernst. Spring Garden, Sept. 17, 1848.*

C. M. Hovey, Esq., Sir.—The May number of your Magazine, containing your "review" of the "Strawberry Report, read before the Cincinnati Horticultural Society, August, 1847," by a committee of that body, did not come to hand until the 24th instant, consequently not giving time for a suitable notice of it to reach you for your next, or June number.

Without disputing your right of opinion, it can not be tolerated that your *misrepresentations* should pass unnoticed. The boldness is not for a moment disputed. The generalship displayed, may, however, with much propriety, be questioned. I shall show that the attack was injudiciously made, without an adequate force with which to advance, and no reserve to cover a retreat. This I will endeavor to do as briefly as the importance of the subject to the public will admit of.

It will be observed, the committee were appointed for a specified purpose, as set forth in the report. To collect and ascertain facts of the "*Sexual character of the Strawberry*." They did not feel it their duty to depart from this, and stop to inquire on whom these facts would likely bear favorably or otherwise; nor did they go blindly to their work and make assertions not sustained by the best testimony within their reach. It is, however, not the design to enter into an argument on this point, but to confine these remarks to the "reviews."

That it should be viewed as "the vexed strawberry question," with a manifest desire to get rid of it, if possible, with one bold stroke, by those whose interest is likely to be so materially affected by its further discussion, is not to be wondered at. The committee were not laboring under this magnetic influence. Hence it will not be considered as remarkable that no other fault is found or criticism extended to other parts of the report, although *Buist's Prize Seedling*, (which the originator vended at \$3 per dozen plants,) the *British Queen*, &c., passed the ordeal and scrutiny of the committee with no less favorable results than the "*Boston Pine*." Yet for obvious reasons, we hear not a word in defence of their insulted rights. Not a lisp is uttered of their spuriousness. But the moment the electrifying term *Boston Pine*! strikes the sensitive ear, it pours forth the exclamations, "Really, we are constrained to say our Cincinnati friends do not understand the cultivation of the strawberry, or else they have not the true sorts cultivated under the same names as at the

east." "Really" a wonderful discovery this to dispose of the "vexed question." But to proceed, you say, "Passing over all the descriptions and other matters, we at once come to the portions of the report, which to us, are more important than the discussion of the simple question of stamens and pistils." No doubt here we have the true gist of the matter. The important facts of the report are set aside to make room for a cavil about the term "*perfect*," as applied to the Boston Pine, and a ruse is resorted to, to produce the impression that the committee were incompetent and careless, and have been guilty of a false statement, drawn from a spurious sort. And the questions are tauntingly asked, "Who raised Mr. Hovey's Perfect, as the committee style it? Did any one of them ever see such a variety noticed in our pages, or described by us?" These insinuations and questions come with rather an ill grace from a quarter where there has been so much vacillating on this "vexed question," and are too shallow to have much force.

The observer will see by reference to the report that the term, (*Mr. Hovey's perfect*) is in *brackets*, and not at all given as the name. To show the propriety of its use in connection with the "*Boston Pine*," it is not necessary to go farther back than the *laudatory advertisement* of the Messrs. Hovey & Co., on the cover of the number containing the review, for the sale of the plants. Here it is said, the flowers are all staminate or perfect. If the Messrs. Hovey & Co., as originators, may use the term *perfect*, the committee's right should hardly be disputed.

The next important point that concerns the public is the genuineness of the Boston Pine, from which the committee's observations were made. In the fall of 1845, the writer ordered from the Messrs. Hovey & Co., some 8 or 10 sorts of the new strawberries, among them two dozen of the Boston Pine, for which he paid \$6, that is \$3 per dozen plants. These were carefully planted out, and of course watched with equal care, for a realization of the high expectations which the price and their advertisement justified. The next spring after planting, the character of their fruiting proved a disappointment. The next equally so, and this spring, with a few reservations, they have been turned under as cumberers of the ground. It was from this plantation that the committee's observations were made. On a careful comparison of the foliage of the denounced Boston Pine, with that figured in the 3d No. of *Hovey's Fruits of America*, all doubts of its genuineness is removed. I wish the same identity existed as to the fruit. In that outline you represent 9 out of 14 blossoms as having set very perfect fruit. What confidence, then, is a review entitled to, so full of wilful misstatements and denial of facts.

Now it is immaterial to the Society or this committee, as to the truth or falsehood of what the Messrs. Hovey & Co. say in their advertisement,

* It may not be out of place here to remark that these are alike staminate; and it is not denied in the report that in some staminate, as also in some pistillate, the rudiments of the other sexual character exists in a rudimentary and obscure form, as for example, *Hovey's Seedling*, (pistillate,) which under peculiar circumstances of cultivation, and perhaps influence of soil and climate, may be so developed as to produce a partial crop, which, to the casual observer seems a full one. A fine example of this apparent productiveness was shown in the efforts of a plant of the *Iowa Male*, brought to the Society's Hall by Mr. S. M. Carter, of Ky., in the spring of 1847. This plant had produced one hundred and eleven blossoms, which set seventy-eight fruit. On close examination, however, it was found that none were perfect. —[*Strawberry Report*, p. 11.] From these occasional *artificial deviations*, we are not however to infer that staminate plants, (strictly so,) are ever to be depended on as bearers; or that pistillate plants (strictly so,) will fruit without the presence and fertilization of staminate. When they do, they partake more or less of both *sexes*. This position must be true, or all experience and reason drawn from the causes of reproduction is of no force, but is a mere fancy as applied to the strawberry. A. H. E.

cautioning the public, "that the kind cultivated and exhibited in Cincinnati as 'Hovey's Perfect,' and sold for the Boston Pine, is a spurious kind, and was never raised by them." The point for them to be satisfied on is, "Were their observations made from the genuine sort, and if not, who practiced the imposition on them?" For this the Messrs. Hovey & Co., or myself are alone *responsible*. They have raised the issue of veracity and made it assume a personal matter between us, and they must take the consequence. It is for an impartial public to judge where the truth rests. To their judgment the facts above stated are submitted, with no fears as to the result. On the one hand, they have the natural affectionate feelings of devoted parents, defending their cherished offspring. On the other, the actions of one who, in a pecuniary point of view would have been much benefited in the sale of the accumulated stock of the plants in question. Had a due regard to truth and the position he was called to occupy by the Society justified him in a successful effort to influence his colleagues to a coincidence with the views of the originators; if the caution in the advertisement then be true, they are guilty of duplicity in sending abroad for the Boston Pine what they assert they "never raised," and making the writer the innocent instrument of imposition on the committee and the Society, or on the other hand they are guilty of publishing a falsehood on them. They are of course at liberty to choose their position.

As to the insinuations of the incompetency of the committee, and the confidence cultivators may place in them, I may be permitted to say, that in its selection it was deemed important that a part of its members should consist of gentlemen who have been long and extensively engaged in the practical cultivation of the Strawberry, and a part who were well acquainted with a scientific knowledge of the subject. That nothing might be left unnoticed that science and practice could detect. It is left with the public to judge how far such a committee would be likely to commit the blunders attributed to it.

In conclusion, I wish to correct one other error, of little importance to any one but myself. I had not the honor to be chairman of the committee, nor did I have any hand in penning its matter. It was simply to the practical matters of fact that my attention was directed and the principles therefrom deducted. By these I am prepared to stand. Dr. Warden's modesty led him to put his name where mine should have been, which I did not know until I saw it in print. He is Chairman and writer of the report. I do not mention this with any desire to rid myself of any of the responsibilities of it, but simply because I find myself unexpectedly clothed with the weight of a well earned reputation of another. This, I supposed, I had guarded against, by writing in the copy I sent you, opposite the Dr.'s name, *Chairman*, to designate to whom the credit is due.

Hoping that you will not feel it out of place to make room for the above remarks in your next No.

I remain, respectfully yours, *A. H. Ernst, Spring Garden, near Cincinnati, May 28, 1848.*

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METEOROLOGY—*A. J. Downing, Esq.*—Sir: I observe that many of your readers ask questions, through your journal, and receive answers, either from yourself or a subscriber. Perhaps this liberty ought to be confided to the more legitimate objects of the horticulturist; and yet, I know that many of your subscribers are men of science, and therefore would feel interested in the questions I am about to propose. Besides, without lightning, thunder and rain, in the old fashioned way, many a pomologist and florist would be disappointed in his hopes, however little he might care about the science of meteorology, so that on second thought, perhaps, you will think my inquiries come within the proper scope of your journal. And now for the object of this letter.

Statements—1. We have a railroad passing through this city, on the line of which there are telegraphic wires, reaching from Boston to New-York, and by occasional connection to all parts of the country, where this mode of communication has been adopted.

2. During the period since the erection of these wires, we have had, in this part of the country, a remarkable exemption from thunder storms of all grades, and especially from those appalling exhibitions of this kind to which most parts of our country are subject.

3. During the past season, from winter to the present time, not a single severe thunder storm has occurred in this vicinity, nor have we heard thunder, or seen lightning, even at a distance, since the month of June, more than two or three times.

Inquiries—1. Has there been any unusual exemption from the phenomena of lightning and thunder, in other parts of the country through which railroads and telegraphic wires pass, since their erection?

2. Where such wires have been erected, without the rails, or the roads, without the wires, have the usual number and intensity of thunder storms occurred?

3. In sections of the country at a distance, say of 30 or 50 miles, from railroads and telegraph wires, has there been observed any remarkable difference with respect to the phenomena in question, within the last few years?

Remarks.—It is a good rule, in natural philosophy, as well as in other departments of knowledge, never to form a theory until the facts on which it is to be founded have been clearly ascertained; and yet, in the present case, I can hardly avoid making a few suggestions in anticipation of the results of the above inquiries.

Telegraphic communications show that the electrical aura can be sent hundreds of miles in a second of time; thus proving that the wires through the centre line to such distances are charged with the fluid, and yet in another second, every vestige of this mysterious influence may be dissipated, as is shown by breaking the connection between the wires and the battery. Admitting that lightning and artificial electricity are identical, what prevents that of the atmosphere from following the

same laws, and being dissipated, or equalized by the same means. It is known, at all telegraphic stations, that the apparatus is affected by a thunder storm, at the distance of hundreds of miles; and in the southern states the wires are often so fully charged with atmospheric electricity, that the small quantity added by artificial means has no appreciable effect; and thus the usual telegraphic communications may be, and are, entirely suspended for hours.

The above being known facts, might we not infer that the result would be, at least, a partial equilibrium of the electrical influence between the atmosphere and the earth, by means of the telegraphic wires; and that these wires, together with the iron tracks of the railroads, would combine to form an electrical equilibrium between distant portions of the atmosphere, and equally distant portions of the earth? And that thus those local accumulations, which result in thunder storms, would be, at least, in a degree prevented?

If some of your subscribers, or others, who live near railroad and telegraphic lines, and also some who live at a distance from such lines, will be so kind as to answer the above questions, directed to J. L. Comstock, M. D., Hartford, Ct., the undersigned will communicate the result for publication in your useful journal. I am, sir, very respectfully your ob't serv't, *J. L. Comstock. Hartford, Ct., September 19, 1848.*

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THE ROSE.—But many of the finest ornaments of the garden, require no peculiar soil or treatment; and amongst these, are the old favorites, pinks and roses. A late writer on the rose, indeed, has said that "rose-growing is confined to latitudes south of 41 deg." but could he have ever visited Western New-York, or attended its exhibitions? Why, we have hundreds of superior kinds that are perfectly hardy, and even the many colored Greville, blooms finely with a little protection in winter.

It should also be remembered, that some *tender roses*, when killed to the ground, assume the habit of *herbaceous perennials*; and send up stems from the root that bloom abundantly throughout the summer. I first observed this result in the Champney and Aimee Vibert; and why may not all unbudded perpetual bloomers do so, if planted deep? Cut them down on the approach of winter, and cover the stumps with a sod. It would only be a new style of pruning.

Roses, however, that only bloom once in the season, requiring the last years' wood for the flowering stems to stand on, would not succeed with this treatment.

Perhaps the best method of training the tall-growing kinds, is on pillars. Two years ago, I had pieces of scantling, twelve feet in length and three inches by four, planted as posts, first perforating them in five or six places with a two-inch auger. Through these holes the stem of the rose is drawn. As it lengthens, this operation should be repeated from time to time, till it reaches the

top, about nine feet high; and as it depends on no decaying cord or bandage for support, it cannot be blown down by the wind.

To insure these posts from decay, inch auger holes near the ground, were bored, slanting downwards, not quite through, and filled with salt.—Some persons have used plugs in their posts to keep out the rain; but it is best to leave them open for a time, till the wood becomes saturated with brine. As the salt dissolves, more should be supplied—say two or three times a year.

To obtain a finer display, I have planted roses of different colors, on opposite sides of the posts, intertwining their branches. At one, I have the *tea scented Ayrshire* and *Violet Episcopal*, by way of contrast; and at another, the *Baltimore Belle* and *Queen of the Prairies*. I have sixteen posts of this description, and have obtained, expressly for this purpose, a sufficient number of tall growing kinds. Further experiments are wanted, however, to determine what sorts can be most fitly associated, and what shades of color will harmonize the best.

Of all the insects that annoy the florist, the rose bug ought to stand first on the list. It is a perfect nuisance; and it is doubted if any way to expel them has been discovered, except by manipulation. Even in this northern land, they appear to have inhabited sand hills from time immemorial; and would seem to be now on the increase; but, on heavy loams—which constitute perhaps nine-tenths of this vast region—I think they have not been observed. This exemption we ought to prize very highly, and gives us advantages over the south. If a few of our roses, such as the *Chromatella*, are prevented by our climate from assuming the habit of a tree, it is consoling to know that none in all our collections on heavy soils, will be defaced by the rose-bug.—*D. Thomas' Address at Buffalo.*

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HORTICULTURAL HUMBUGS.—There are a number of these which take periodical journeys in the papers, and are thus "rescued," as the *Prairie Farmer* says, "from drowning." Among them are, that the insertion of apple grafts in a potato before planting in the earth, insures their growth; that covering asparagus stalks with a bottle, the stalk will soon swell prodigiously and fill the bottle; that the exclusion of grubs from cabbage may be effected by a circle of salt; that transplanting evergreens is successful at midsummer; that by grafting or budding the peach on the willow, the fruit, when it grows will have no stones; that plucking potato balls will cause a great increase in the tubers; that peach and apple seeds, planted in the fruit, will infallibly re-produce the same variety; that the escape of sap, by pruning the grape in spring, will destroy the vine; that the growth of vegetables or weeds, will prevent the soil from drying by affording shade, &c.—*Cultivator.*

GREAT DAIRY FARM.—One of the greatest dairies, in our country, is that of Col. MEACHAM of Pulaski, N. Y. His farm consists of 1000 acres, 300 of which are devoted to grass; and he keeps one hundred head of cattle, and ninety-seven cows. In one year he made 30,000 lbs. of cheese, 20,000 lbs. of which sold at one time, in New-York, for from $6\frac{1}{2}$ to 7 cents per pound. He feeds his cows mostly on hay and carrots; of the latter, he raises 2000 bushels, and gives each cow half a bushel per day. And besides the benefit derived from his grass for his stock, he gathers not less than 300 bushels of grass seed. *Report of U. S. Patent Office.*

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ANSWERS TO CORRESPONDENTS.

GRAFTING GRAPES.—*Simon Folsom*, (Lowell,) will find full directions for grafting grapes in our work on *Fruit and Fruit Trees*.

CURCULIO.—*A. B. C.*, We cannot recommend to you any certain mode of getting good crops of plums in your sandy soil, but that of making a plum-yard adjoining your hog-pen, and allowing the hogs to have free run in it, (first protecting the trunks of the trees,) from the time the blossoms open till the fruit commences to ripen. This is an effectual mode, and the only one on a large scale that we know. *J. F.*—The curculio commences its attacks, usually, directly after the blossoms drop, and from that time till the fruit is as large as a hazelnut; but mostly while it is quite small.

PEACH TREES.—*Geo. Jaques*, (Worcester.) In budding peach trees, the single buds are preferred, (those being *wood* or *growing* buds;) the double buds are usually blossom buds; the triple ones contain both blossom and growing buds. The last will answer, but the first are the best.

ANTHRACITE COAL.—*Brown*, (New London.) Anthracite *dust* or screenings are of little or no value for orchards, except mechanically, i. e., to make heavy soils light. You had better mix it with brush or faggots, and use the whole to burn clay or sods, when the whole will make a most fertilizing compost. The *ashes* of anthracite coal have proved especially valuable as a top-dressing for the cherry tree.

STRAWBERRIES.—*W. G. W.*, (Centre county, Pa.) The only superiority of the *first* runners of strawberry plants for new plantations is that they are usually the strongest. The *firmest* strawberry,

and therefore one of the most profitable for market culture, is the *Hudson*.

DRYING FRUITS.—*W. G. W.* You will find an account of the best mode of drying fruits, and especially plums, in our work on *Fruits*. We shall soon translate and republish an interesting article on this subject, from a new German work.

HEDGES.—*M. J. S.*, (Boston.) The berberry will make a good hedge if regularly sheared. You will see a good specimen of it in the grounds of HORACE GRAY, Esq., Nonantum Hill, near Newtown. *Wm. Johnson*, (Baltimore.) The *Osage Orange* is our favorite hedge plant for all parts of the Union, where the winters are mild, or even where the thermometer does not sink lower than 5° below zero. Plants may now be had in most of the nurseries at low prices, by the thousand.

TRANSPLANTING TREES.—*E. Bidwell*, (Charleston.) You will be much more successful in taking trees from the north in November than at any other season. Shorten the heads one-half when you plant them. *J. W.*, (Burlington.) Raise a mound or hillock round your trees, a foot high, and let it remain till the spring opens. This will not only protect the roots from frost, but will keep the tree steady. *A. R. P.*, (Newport.) Evergreens succeed best in spring planting; but they may be transplanted, with perfect success, at any season, if you preserve a ball of earth about the roots. The hemlock likes best a cool damp soil, though it will grow on one perfectly dry. The European holly will not stand your winters.

SELECTIONS OF FRUITS.—*J. Williams*. The best three peaches for your garden are Early York, George the Fourth, and Oldmixon Freestone. *E. P. R.* The Cherry Currant may be had of PARSONS & Co., and other nurserymen; see catalogues. *A Young Orchardist*. Roxbury Russett and Baldwin are the two most profitable orchard apples for New-England. The Newtown Pippin does not suit the climate.

PRUNING VINES.—*An Amateur*, (Trenton, New-Jersey.) We prefer autumn pruning, directly after the leaves drop, to that done in February or March, for all hardy vines.

* * Correspondents who are *subscribers*, will hereafter find replies to any questions on subjects within the scope of this journal, in this department, (unless otherwise requested)—and all queries put in a *brief shape*, and sent to us *free of postage*, shall receive attention. Ed.

ALBANY AND RENSSELAER HORTICULTURAL SOCIETY.

THE second annual exhibition of this Society was held in the Geological Rooms, State street, Albany, on the 14th and 15th instant, and was in all respects, considering the season, a most gratifying exhibition.

The Society are under great obligations to Messrs David Thomas of Aurora, J. J. Thomas of Macedon, William Rankin, Esq. of Newark, N. J., and S. C. Groot of Schenectady, for the choice selection of fruits presented by them for exhibition; and which are more particularly referred to in the report of the committee.

The friends of the Society have every reason for encouragement from this exhibition, and it cannot be doubted that this Society is now so well established as to realise all that its earliest friends anticipated from its organization.

In the absence of the Secretary of the Society, Mr. R. F. Johnstone, of this city, kindly proffered his services, and aided in the arrangement and preparations for the exhibition.

JOEL RATHBONE, *President*.

VEGETABLES.—The Committee on Vegetables state that the contributions to this department were very numerous, and exceeded in interest any previous exhibition; and that in many cases it was very difficult to determine to whom the prize on several articles should be awarded.

E. P. Prentice, of Mount Hope. Three varieties of Rhubarb, Red Cabbage, Late Drumhead Cabbage, Lima Beans, Egg plants, Parsnips, Peppers, Tomatoes, Carrots, Onions, Beets, Celery, seven varieties of Squashes, of which the committee noticed especially the Marrow, Custard and Hybrid.

J. H. Willard of Troy. White Cabbage. Egg plants, Salsify, Onions, Martynias, Turnip Beets, Seedling Potatoes, Okra, Lima Beans, Squash Peppers, Tomatoes, Radishes, four varieties of Potatoes, Crookneck Squashes.

V. P. Douw of Wolvenhook. Greenbush Beans, four varieties, fine Egg plants, Peppers, Tomatoes, Okra, Long Green Cucumbers, Purple Cape Broccoli, Salsify, Long Blood Beets, Turnip Beets, Parsnips, Cabbage, White Crookneck and Brazil Squashes.

Frederic Keisel of Albany. Chicory Salad, White and Red Onions, Parsley, Turnips, Celery, Kohl Rabi, Leeks, Peppers. Dr. Herman Wendell of Albany. Kohl Rabi, Turnip Beets, Blood Beets, Onions, Parsnips, Carrots, Chicory, Sweet Potatoes, seedling Potatoes, Tomatoes, Peppers, Portugal Cabbage, Red Cabbage, Drumhead Cabbage, and Martynias.

John Taylor of Albany. Early pod seed Cucumbers, Beets, Judge Parker, Albany. Mammoth Tomatoes.

Dr. J. Wilson of Bethlehem. Tomatoes, seed Cucumbers, Carrots, Squashes, Pumpkins, Turnips, Yellow Corn.

Daniel Payne, of Albany. A fine show of Onions, large Cabbage, Blood Beets and Carrots.

Joel Rathbone, of Kenwood. Egg plants, Carrots, Parsnips, Turnip Beets, Onions, Marrow Squash, Boston Squash, seedling Rhubarb, Okra plants, Endive, Sweet Potatoes, Lima Beans, Kohl Rabi, four varieties of Tomatoes, Seedling Potatoes, Salsify, Leeks.

Stephen Moseley, Bethlehem. Squashes, Cucumbers, Pumpkins, Muskmelons, Squash Peppers, Parsnips, Black Radishes, Yellow and Sweet Corn.

Joel Munsell of Albany. An ear of California Corn.

R. F. JOHNSTONE, C. N. BEMENT, J. WILSON, M. D.

The committee on Greenhouse Plants, Flowers, Floral Designs, etc. beg leave to report that there were exhibited

By Joel Rathbone, Kenwood. Two magnificent floral designs, one of a novel form, possessing great grace and beauty, and both composed of very choice flowers, arranged with skill and good taste. Twenty varieties of Dahlias, of rare kinds and fine blooms. Thirteen varieties of Roses.

By James Wilson. Eighty varieties of Dahlias, embracing all the late and rare kinds. A large and beautiful collection of Roses, among which were the following, La Reine, Prince Albert, Marquis Bocella, Madame Damme, Duchess of Sutherland, Mrs. Cripps, William Jesse, Dr. Roque, Phoenix, Soliman, Countess Duchatel, etc. A choice collection of Phloxes, Verbenas, German Asters, etc. Two beautiful bouquets, one round and the other flat, arranged with much taste.

By Louis Menand, Watervliet. Six greenhouse plants

in pots, viz. Erica cruenta, Erica blanda, Combretum purpureum, Fuchsia globosa, Cereus smithianus.

By William Newcomb, Pittstown. Eighty varieties of Dahlias, a very choice collection and perfect flowers; a beautiful show of German Asters, and a fine flat parlor bouquet.

By Henry Vail, Mount Ida, Troy. A round centre table bouquet, composed of rare flowers, and constructed with much taste. Also a new and elegant Dahlia called the Metropolitan Green.

By Dr. Herman Wendell, Albany. A very handsome basket-shaped bouquet, one round bouquet, a large and choice collection of Dahlias, German Asters and Verbenas, some seedlings among the latter being exceedingly fine.

By V. P. Douw. A very handsome collection of flowers, consisting of Noisette and Perpetual Roses, Verbenas, Ericas, Passion flowers, etc.

By Amos Briggs, Schaghticoke. Two round bouquets and a collection of Dahlias, German Asters, Roses, Heliotropes, &c. By Dr. J. Wilson, Bethlehem. A box containing a very beautiful collection of Dahlias.

W. NEWCOMB, J. M. LOVETT, M. FERRIES, E. H. PEASE.

FRUIT.—The Committee on Fruit reports that there were exhibited,

By H. Vail, Mount Ida, Troy. Twenty-five varieties of Pears, including the Bell, Beurre d'Arenberg, Gansell's Bergamot, Golden Beurre of Bilboa, Duchess d'Angouleme, etc. Twenty-one varieties of Apples, including Talman's Sweeting, R. I. Greening, Yellow Newtown Pippin, English Russet, Detroit, Dominie, Swaar and others. Four varieties of Grapes, Black Prince, Blue Chasselas, Isabella, Catawba. Also the Noblesse Peach.

By Dr. Herman Wendell, Albany. Twenty three varieties of Pears, including the Beurre Bose, Beurre Spence, Van Mons' Leon le Clerc, Bartlett, Julienne, Muscadine, etc.

By E. P. Prentice, Mount Hope. Twenty-six varieties of Apples, including the Rhode-Island Greening, Tallman's Sweeting, Golden Russet, Pearmain, and other varieties.

By Messrs. McCulloch and Kirtland, Greenbush.—Nine varieties of Apples, including the Spitzenberg, Golden Russet, Bark Knot, Baldwin, etc. Four varieties of Pears, Napoleon, Virgalieu, Summer Bonchretien, Aston Town.

By J. J. Thomas, Macedon, Wayne county. Fifteen varieties of Apples, seven varieties of Pears, and three varieties of Peaches.

By Judge Parker, Albany. Seven varieties of Grapes, viz. Sweet Water, Blue Chasselas, Black Burgundy, Winne, Fragrant, Isabella, and Catawba. Bergamot and Virgalieu Pears.

By Joel Rathbone of Kenwood. Fall Pippin, English Russet, Apples. Fondante d'Automne and Van Mons' Leon le Clerc; also a branch of the Ohio Everbearing Raspberry, loaded with fruit.

By W. Rankin, Esq. of Newark, N. J. Seven varieties of Pears, three varieties of Peaches, and four varieties of Grapes.

By Dr. J. M. Ward, of Albany. Six varieties of Apples. By Amos Briggs of Schaghticoke. A plate of very handsome Bartlett Pears.

By S. C. Groot, Schenectady. Seven varieties of Pears, all very fine specimens.

By David Thomas of Cayuga. Some very fine Nectarines. By J. D. Chism. Portugal Quinces, Persimmons, and a seedling Pear, resembling the Old Pound Pear.

By the Hon. John Taylor, Mayor of Albany. Gloria Mundi Apples, and Virgalieu Pears.

By Judge Harris of Albany. Three varieties of pears. By Dr. J. Wilson of Bethlehem. Skillman's Canteloupe Muskmelons, and Joppa and Spanish Watermelons.

By V. P. Douw, Greenbush. Three varieties of Watermelons, and fine specimens of Citron Melons.

By Dr. H. Wendell. Six varieties of Melons, and Joppa and Spanish Watermelons.

B. B. Kirtland, Greenbush. Skillman's Canteloupe and Bokhara Melons.

By H. Vail, Mount Ida, Troy. Six varieties of very fine melons.

By Louis Menand, Watervliet. Some superior melons.

V. P. DOUW, JAS. WILSON, WM. BOSWELL, B. B. KIRTLAND.

MASSACHUSETTS HORTICULTURAL SOCIETY.

[Owing to unavoidable circumstances, the reports of the proceedings of the Massachusetts Horticultural Society have not appeared in the Horticulturalist for the past two months. To enable us to bring them up to the present time, we give *eight extra pages* with this number.]

June 24, 1848.

Business meeting—President M. P. WILDER in the chair.

The committee to whom was referred the holding of a pomological convention, reported that they deem the holding of such a convention desirable, and it was

Voted, That the committee be authorised to negotiate with the Pennsylvania Horticultural Society and American Institute upon the subject.

The meeting was then dissolved.

July 1, 1848.

A stated meeting—President M. P. WILDER in the chair.

The following gentlemen were elected members of the Society, A. D. Webber, Nathaniel H. Emmons, Noah Sturtevant, Adin Hall, D. S. Kendall, Selden Crockett, Boston; Wm E. Strong, and Ljman F. Winslip, Brighton; W. Spencer, Lowell; Wm. H. Davis, Milton.

Voted, That appropriations for the objects of this Society be made at the stated meetings in January, April, July and October, and at no other meetings.

Adjourned for one week.

July 8, 1848.

Business meeting—President M. P. WILDER in the chair, John Schouler of West Cambridge was proposed for membership by the President.

Adjourned for one week.

July 15, 1848.

Business meeting—President M. P. WILDER in the chair. President Wilder in behalf of the committee, submitted the following report:

The committee appointed to confer with the Pennsylvania Horticultural Society and the American Institute, in relation to the proposed pomological Convention at New-York, beg leave to report, that such a convention has been deemed desirable, and that, if it meet the views of this society, your committee ask authority to unite with the representatives of the above named associations in fixing upon an early day in October next, and in making such further arrangements as they may deem necessary.

Voted, That the report be accepted.

A communication was received from Thaddeus William Harris, Esq., Librarian of Harvard University at Cambridge, requesting a set of the various publications of the Society for the University's library, and the subject was referred to a committee consisting of the Corresponding Secretary and Librarian, with instructions to request a copy of the University's Catalogue.

Bowen Buckman of Woburn was elected a member of the Society.

Adjourned for one week.

July 22, 1848.

Business meeting—President M. P. WILDER in the chair.

John H. Robinson of Dorchester was elected a member of the Society.

Adjourned for two weeks.

August 5, 1848.

Business meeting—President M. P. WILDER in the chair. John F. Hyde of Newton was proposed for membership by John A. Kenrick.

A copy of their Transactions was received from the New-York State Agricultural Society, and it was

Voted, That the thanks of the Society be presented to the New-York Agricultural Society.

John Schouler of West-Cambridge was elected a member of the Society.

Adjourned for two weeks.

August 19, 1848.

Business meeting—President M. P. WILDER in the chair.

Joseph Breck was appointed secretary pro tem.

The following gentlemen were proposed for membership.

Robert Manning, Salem, by Samuel Walker; Justus Evans Watertown, by E. A. Story

A communication was received from Dr. W. D. Brinckle of Philadelphia, accompanied with specimens of new pears, and it was

Voted, That the thanks of the Society be presented to Dr. Brinckle.

Voted, To invite delegations, to consist of the President and two other members from the following societies to attend the annual exhibition of September 20th, 21st, and 22d, viz: The Pennsylvania Horticultural Society, American Institute, New York, Cincinnati Horticultural Society, Ohio, New-York State Agricultural Society, Albany and Rensselaer Horticultural Society, Albany. New-Haven Horticultural Society, Conn., Rhode-Island Horticultural Society, Providence, Essex County Institute, Mass., Worcester County Hort Society, Mass., New-Bedford County Horticultural Society, Mass.

Adjourned for two weeks.

September 2, 1848.

Business meeting—President M. P. WILDER in the chair.

The following gentlemen were proposed for membership, Charles J. Hendee, Roxbury, by Wm B Kingsbury, Wm. Hill, South Boston, by A. Bowditch.

A letter was received and read from the St. Louis Horticultural Society requesting a copy of the Transactions of the Massachusetts Horticultural Society, and it was

Voted, To place it in the hands of the corresponding Secretary to reply.

A communication was received from the New-Haven Horticultural Society accepting the invitation of this Society to be present at their annual exhibition, and extending an invitation to the Massachusetts Horticultural Society to send a delegation to attend their fair, which takes place on September the 26th, 27th, and 28th, and it was

Voted, That the subject be laid upon the table to be acted upon at the next meeting.

Voted, That the annual exhibition commence on Tuesday the nineteenth instant instead of Wednesday the 20th instant, as previously voted.

Voted, That a delegation be appointed to attend the National Convention of Fruit-Growers to be held at New-York on Tuesday the 10th day of October next, and that it consist of the following gentlemen, viz. The President, the Vice presidents, members of the committee on fruits, A. J. Downing, Newburgh, N. Y., Robert Manning, Salem, and such other members as may hereafter be added.

James F. Hyde of Newtown was elected a member.

Adjourned for one week.

September 9, 1848.

Business meeting—President M. P. WILDER in the chair.

Voted, That a delegation be appointed by the chair to attend the annual fair of the New-Haven Horticultural Society and Messrs. B. V. French, E. M. Richards and Cheever Newhall, were chosen delegates with power to fill vacancies.

Voted, That a delegation be appointed by the chair to attend the annual exhibition of the Rhode-Island Horticultural Society, and Messrs. Samuel Walker, F. W. Macondray, and David Hagerston were chosen delegates with power to fill vacancies.

Voted, That the corresponding Secretary be requested to return the thanks of the Society to the Cincinnati Horticultural Society for their invitation to be present at their exhibition on the 13th and 14th instant, and inform them that on account of the proximity of the time to our own exhibition, and the consequent engagement of members it will be impossible to be represented.

Voted, That Josiah Lovett 2d, A. D. Williams, W. B. Kingsbury, Joseph Breck, A. D. Williams, jr., Azel Bowditch, be added to the delegation appointed at the previous meeting, to attend the Central Convention of fruit growers at N. York.

Voted, That no weekly exhibition take place on the Saturday previous or subsequent to the annual exhibition, the Recording Secretary to give notice to that effect in the public papers.

Voted, That the committee on tickets to the festival be authorized to engage a suitable person to take charge of and have the entire disposal of the tickets, and that they be reserved for the members of the Society until Monday September 13, after which to be disposed of to all who may apply.

Adjourned for one week

Exhibition of Saturday, June 24.

FLOWERS—The display of Roses was very rich; all the stands being occupied with fine specimens. M. P. Wilder, President of the Society, filled one of the circular stands with choice flowers; there was also a profusion of Roses from Hovey & Co., A. Aspinwall, John A. and William Kenrick, Nonantum Vale, Winships, Bowditch, Breck & Co., Parker Barnes, E. Wight, S. Walker, B. V. French, Wm. Mellor, F. W. Macondray, and others. Fine Pinks from Wm. Mellor, and Breck & Co., Bouquets from Messrs. Bowditch, Nugent Cadness, Mellor, Winships, and Miss Russell; cut flowers from numerous sources; pot plants from Nonantum Vale, by John Cadness; Native flowers from Solon Dike, Stoneham.

The Rose family was fully and ably represented. To name all the fine varieties exhibited, would be to publish an extended catalogue.

AWARD OF PREMIUMS.

Roses. Class No. 1.—For the best thirty varieties, to A. Aspinwall, a premium of \$8.

Second best, to Hovey & Co., \$6.

Third best, to John Cadness, \$4.

Class No. 2.—For the best 12 varieties, to Joseph Breck, \$5. Class No. 3.—*Hardy Perpetuals*.—For the best 10 varieties, to Hovey & Co., \$5.

Second best to A. Aspinwall, \$4.

Prairie Roses.—For the best display, to Winships, \$4.

Second best, to Hovey & Co., \$3.

For the best display of Hardy Roses, to A. Aspinwall, \$3.

D. Haggerston, W. Quant, Joseph Breck, Judges.

Pot Plants.—For the best six plants, 1st premium to John Cadness, \$2.

Pinks.—For the best six varieties, 1st premium to William Mellor, \$4.

Second best, to J. Breck & Co., \$3.

Best display, Wm. Mellor, \$2.

Bouquets.—Mantel.—For the best pair, to Winships, \$2.

Second best, William Mellor, \$1.

Vase.—For the best, to John Cadness, \$2.

Second best, J. Nugent, \$1.

H. W. Dutton, William Quant, J. Breck, Judges.

Gratuities.—The Committee recommend a gratuity of \$6 to M. P. Wilder, for his fine display of Roses.

To Miss Russell, for a basket of Flowers, \$1.

JOSEPH BRECK, Ch'n Flower Committee.

FRUITS.—*Strawberries*.—Fine specimens of Hovey's Seedling, from Otis Johnson, Lynn; Augustus Aspinwall, Brookline; Hovey & Co., Boston; Augustus D. Rogers, Salem; Mr. Spaulding, South Reading; Azel Bowditch, Roxbury; S. Turner, Roxbury; Isaac Fay, Cambridge; J. Richardson, Cambridge; and J. Owen, Cambridge. Boston Pine, by Messrs. Hovey, J. Richardson, J. Owen, and Nahum Stetson, Bridgewater. Fay's Seedling, by Isaac Fay, Cambridge. Early Virginia, by Capt. Macondray; Willey's Seedling, by Capt. Macondray; Ross Phoenix, by Messrs. Hovey; Jenny's Seedling, by Nahum Stetson; Richardson's Seedlings, Nos. 1, 3, and 5, by J. Richardson, Cambridge; Mulberry, by J. Owen, Cambridge; Alpine, red and white, by J. L. L. F. Warren, Brighton.

Grapes.—Twenty varieties from J. F. Allen, Salem; among them we noticed Tottenham Park, Muscat, Black Hatif, and Hamburg; also Black Hamburg and White Chasselas, from A. Bowditch, and Black Hamburg, from Orr N. Towne, and E. Barnes, gardener to Samuel Bigelow, Brighton.

Figs, from Nahum Stetson, Bridgewater, and J. F. Allen, Salem.

Cherries.—Elton, from J. F. Allen, (fine,) also other varieties, by E. Brown, Lynn; and George Thurber, Providence.

Peaches.—Coolidge's Favorite, by Otis Johnson, Lynn.

For the Committee, S. WALKER, Chairman.

VEGETABLES.—From O. H. Mathers, by Thomas Needham, Brace Walker's Prize Cucumbers.

From A. D. Williams, Cauliflowers.]

From J. F. Allen, Tomatoes.

For the Committee, A. D. WILLIAMS, Jr., Ch'n.

Exhibition of Saturday, July 1, 1848.

FLOWERS.—From M. P. Wilder, President, a beautiful array of cut flowers, filling one of the round stands, among them Solitaire and other fine roses, Japan Lilies, Phloxes, Gladioli, Veronica speciosa, and Lindleyana, Dahlias, Magnolias, &c.

From Hovey & Co., 13 varieties Prairie Roses, as follows: Queen, Perpetual Pink, Superba, Baltimore Belle, Caridora Allen, Pallida, Anna Maria, Eva Corinne, Jane, Pride of Washington, Triumphant, Miss Gummel, Milledgeville, Anna Boleyn pinks, (fine.) Six superb varieties of Fuchsias, viz: Nymph, Defiance, Expansa, Seedling, (weeping,) Globosa super, Enchantress.

From Joseph Breck & Co., their usual large and elegant profusion of cut flowers, among them fine specimens of Martagon, Orange and White Lilies, Phlox Van Houtti, Campanula Wallenbergia, roses in great variety, Delphiniums, Dahlias, &c.

From O. H. Mathers, by Thomas Needham, cut flowers in variety, Gallardias three varieties, Phloxes, roses, verbenas, balsams, and fine seedling geraniums.

From Warren's Gardens; by J. Cadness, a fine collection of Prairie, Lamarque, Solitaire, and other roses, cut flowers in varieties, two mantel and six hand bouquets.

From William Kenrick, by Miss Russell, two pyramidal and two mantel bouquets.

From James Nugent, one fine vase, and four hand bouquets.

From the Messrs. Winship, two fine mantel bouquets.

From Azel Bowditch, a fine display of Moss and other roses; two mantel and eight hand bouquets, a plant of the Night Blooming Cereus, and two of Aspidanthus.

From S. Walker, Roxbury, a fine display of cut flowers, among them seedling Lythrams, Spiraea palmata, Penstemon alba, Delphinium Barlowii, roses, pansies, &c.

PREMIUMS.

Bouquets.—For the best pair of mantel bouquets, 1st premium to J. Cadness, \$2.

For the second best, to the Messrs. Winship, \$1.

For the best vase bouquet, to A. Bowditch, \$2.

For the second best, to James Nugent, \$1.

Pot Plants.—For six fine Fuchsias, well grown, to Messrs. Hovey & Co., a premium of \$2.

For the Committee, HENRY W. DUTTON.

FRUITS.—*Cherries*.—The President of the Society presented three new varieties of Cherries, viz: Bigarreau, Prince, B. Gabaulis, and Belle Andegoise; all of which may be classed with the best varieties. Col. Wilder also exhibited fine specimen of the Waterloo. By Otis Johnson, Lynn, superior specimens of Bigarreau Cœur de Chair, White Bigarreau, Black Tartarian, and Sparhawk's Honey Heart. By John Fisk Allen, Salem, beautiful specimens of Elton and Black Tartarian. By Parker Barnes, Dorchester, four boxes of White Bigarreau.

Figs.—By J. F. Allen, Salem.

Grapes.—Thirteen varieties from J. F. Allen, Salem; fine clusters of Black Hamburg, from Azel Bowditch, Roxbury, and Zinfandel, from Otis Johnson, Lynn.

Peaches.—The specimens of Coolidge's Favorite, by Otis Johnson, Lynn, to-day, as also those of last week, were large, well-grown specimens. They were justly admired for their beauty, as were also all the other specimens of fruit exhibited by Mr. Johnson, who, we must state again, *always* places his fruit upon our table in fine order and with great taste. Capt. Macondray exhibited specimens of Sharpe's seedlings. Mr. Bowditch also exhibited specimens of a variety with *ut* name.

Strawberries.—Two boxes of Hovey's Seedling, (superior,) and one box of Prince Albert, by Otis Johnson, Lynn. Four baskets and six boxes of Fay's seedling, by Isaac Fay, Cambridgeport; also specimens of Richardson's seedling, numbers 3 and 5, by Josiah Richardson, Cambridgeport.

For the Committee, SAM'L WALKER, Chairman.

VEGETABLES.—From O. H. Mathers, by Thomas Needham, a brace of Walker's prize cucumbers. From Gen. Jones, by H. Olmstead, Summer Squashes.

For the Committee, A. D. WILLIAMS, Jr.

Exhibition of Saturday, July 15th, 1848.

FLOWERS.—The department of Flora was by no means neglected to-day by her friends and votaries. Seldom has that favorite of hers, the fragrant *Pink*, been more freely offered or more effectively arrayed. Perhaps we should not particularize this prominent feature of the show, where, owing to the favoring sky of the past week, everything presented an appearance so beautiful and bright; and, where the eye was delighted not only with the choice exotic, but with the more hardy flowers of Nature's generous culture. It was "prize day," however, for this favorite flower, and hence we make of it an especial mention.

President Wilder contributed to the exhibition a variegated grouping of fine seedling Lilies, (in 16 pots,) rare plants, to which, it will be recollected, he has devoted much care and attention, and which, in past years, as novelties, have attracted such admiring notice. Also, from the same cultivator, four pots of Gladioli, of the varieties Duc D'Orleans, Liebnitzii, and Gandavensis.

From Joseph Breck & Co., Carnations, Picotees, and other cut flowers, in profusion and beautiful variety.

From Dr. Charles F. Chaplin, Cambridgeport, a fine collection of Clove Pinks, Picotees, &c.

From Samuel Walker, Roxbury, roses, (a fine cluster of Mad Desprez,) Phloxes, &c.

From Mr. Mellar, Roxbury, Bouquets, Carnations, and other pinks, Dahlias, Phloxes, &c.

From O. H. Mathers, Brighton, by Thomas Needham, Roses, and varieties of Phlox, Gallardia, var Wellsiana, Picta coccinea, &c.

From William Kenrick, by Miss Russell, large mantel and other bouquets, Carnations, &c.

From John Cadness, Agapanthus, Spiræas, Phloxes, Pinks, bouquets, and pot plants.

From George B. Richardson, West Cambridge, bouquets of Pinks.

From S. R. Johnson, Charlestown, a beautiful display of d'Arcole roses, and picotees, in great variety—a brilliant feature of the show.

From Parker Barnes, fine Pinks, Phloxes, Crassula coccinea, &c.

From William Merriam, Brighton, Dahlias, very good for the season.

From Hovey & Co., Pot Plants, four Achimenes longiflora. Two do. A picta, a fine specimen of the new Hydrangea japonica, with eight or ten heads of flowers, and one white Japan Lily, Phlox, Drummondii; also fine picotees and carnations, with other cut flowers.

From Azel Bowditch, Roxbury, fine bouquets.

From William Winchester, Esq., Gloucester, Magnolias. We were glad to see these specimens of indigenous plants.

From James Nugent, Roxbury, bouquets.

From W. Ashby, Esq., Newburyport, Seedling Pansies.

From J. E. Teschemacher, East Boston, three plants Cacti, seedlings Mammillaria speciosa, and C. Melocactus.

It is gratifying, not only to the various members of the Society, but to the public generally, to notice from week to week, the continued efforts of the various amateur cultivators in supplying the stand with so fine an assortment of graceful flowers—bounties yielded by Mother Earth, in ample remuneration for the skill and science of the propagator, and so abounding in satisfaction, both to the sight and to the smell. Long may this right spirit of emulation be manifested, and long may a generous patronage reward the fostering care of the appreciating cultivator.

PREMIUMS.

David Haggerston; William Quant, and S. Walker, Judges. For Carnations and Picotee Pinks.—For the best ten varieties, a premium to Hovey & Co., \$5. No second premium awarded.

For the best display, to Hovey & Co., a premium of \$3.

A gratuity to S. R. Johnson, for a fine display of picotees, \$2.

Bouquets.—For the best mantel bouquet, to J. Cadness, \$2.

For the second best, to the Messrs. Winship, \$1.

For the best vase do., to James Nugent, \$2.

For the second best, to A. Bowditch, \$1.

For the Committee, Wm. B. RICHARDS.

FRUITS.—From J. S. Sleeper, Raspberries, Franconia; Cherries, Florence, and a seedling. This is the second year of trial of this cherry; and the committee were unanimous in passing the high encomium they had the previous season.

M. P. Wilder, President, Pears, Citron des Carnes; also the Cherry Currant, (new,) large and fine.

Hovey & Co., Raspberries; Grapes, Macready's Early White.

J. F. Allen, Raspberries, Franconia, large; Grapes, Espereone, Chasselas, Red Traminer, fine, Ferrol, Zinfindal, White nice, Black Hamburg, Wilmot's new.

Solon Dike, Cherries, seedling.

O. H. Mathers, by Thomas Needham, Grapes, Chasselas, Cannon Hall, Chasselas de Fontainebleau, Black Hamburg, Frontignan.

Moses Young, Illinois, Apples of last year's growth, in good preservation.

Otis Johnson, Raspberries, Fastolf, Knevet's Giant; Grapes, Zinfindal, Black Hamburg, White Frontignan; Cherries, Blackheart, also a cherry without a name, of superior merit. Mr. J. has exhibited this cherry for six years; and has not yet been able to identify it with any known variety.

Galen Merriam, Cherries, Downer's Late.

Samuel Walker, Mulberries, Black.

Rutter & McMullen, Grapes in variety; and Peaches.

H. K. Moore, Cherries, Black Ox-heart.

Messrs. Hyde, Thimbleberries, white; Cherries, seedling.

Parker Barnes, Cherries, Black Mazzard.

A. D. Weld, Currants, Red and White Dutch, fine; Raspberries, Franconia.

Cheever Newhall, Raspberries, Knevet's Giant, fine.

S. R. Johnson, Gooseberries.

B. V. French, Gooseberries in variety; Currants, red and white Dutch.

Messrs. Winships, Currants, red and white, Victoria, rose color. Mulberries, black.

A. D. Williams & Son, Currants, red and white, large and fine.

C. E. Grant, Raspberries, Fastolf.

Azel Bowditch, Grapes, Black Hamburg, fine, White Chasselas. Peaches, fine.

J. Hovey, Gooseberries, fine.

L. G. Thurston, Gooseberries.

J. Lovett, Raspberries, Fastolf, Knevet's Giant, large and fine.

F. Dana, Currants, red and white; Raspberries.

Josiah Richardson, Raspberries, Franconia; Strawberries, Richardson's Late.

F. W. Maconday, Gooseberries; Mulberries; Raspberries, Knevet's Giant, Franconia, Fastolf, and Antwerp. Cherries, Warren's Transparent, Florence.

For the Committee, EERN WIGHT.

VEGETABLES.—From O. H. Mathers, by Thomas Needham, two brace Walker's Prize Cucumbers.

From F. W. Maconday, Early White potatoes, fine show.

From A. D. Williams, Chenango and Early White Potatoes.

From Barney Hedge, by Mr. Olmstead, Potatoes, very large.

For the Committee, A. D. WILLIAMS, Jr.

Exhibition of Saturday, July 22, 1848.

FLOWERS.—From M. P. Wilder, twenty six pots of Japan Lilies, principally seedlings—one of them a red spotted variety seven feet high, with nineteen buds and blossoms.

From S. R. Johnson, a large quantity of Carnations, Picotees and Clove Pinks, some of them very fine.

From Parker Barnes, a collection of fine double Hollyhocks Dahlias, and other cut flowers, including a fine specimen of Yucca filamentosa.

From Joseph Breck & Co., a large collection of double German Ten-week Stocks, double Pinks of various sorts, Phloxes, etc.

From O. H. Mathers, by Thomas Needham, fine Phloxes, and other choice cut flowers in variety.

From William Mellar, seedling Picotee and Carnation Pinks, Dahlias and other cut flowers, and two bouquets.

From Warren's gardens, by John Cadness, a pair of fine mantel and two hand bouquets, fine Picotee and Carnation Pinks, and other cut flowers.

From William Kenrick, by Miss Russell, a basket of flowers and eight hand bouquets.

From John A. Kenrick, by Miss Mary Kenrick, a basket of flowers.

From Hovey & Co., a fine collection of Verbenas and double Hollyhocks, and a fine plant of *Lilium japonicum album*.

From John Hovey, four bouquets.

From Winships, a pair of mantel bouquets.

From Samuel Walker, a fine spike of *Yucca filamentosa*.

From James Nugent, one large pyramidal and eight hand bouquets.

From A. Bowditch, one large pyramidal and four hand bouquets.

From B. W. Ames, Roxbury, Dahlias.

AWARD OF PREMIUMS.

For the best display of double Hollyhocks, first premium to Parker Barnes, \$3.

Second ditto, to Hovey & Co., \$2.

Vase or Pyramidal Bouquets.—First premium to James Nugent, \$2.

Second, to A. Bowditch, \$1.

Mantel Bouquets.—First premium to John Cadness, \$2.

Second, to William Mellar, \$1.

William Quant, M. Cruikshanks, William Mellar, judges.

The committee recommend a gratuity to Miss Russell for a basket of flowers, \$1.

To Miss Mary Kenrick, for the same, \$1.

JOSEPH BRECK, *Chm.*

FRUITS.—From J. Lovett, Gooseberries, white and red; Currants, fine, and Raspberries fine.

Thomas Needham, Grapes, White Frontignan, Cannonball, fine, C. Fontainebleau, Black Hamburg.

Otis Johnson, Grapes, Zinfandel and Black Hamburg, White Frontignan, high colored and fine bloom; Currants extra fine.

J. Hovey, Gooseberries, seedlings and others, fine.

E. Brown, Cherries.

J. Kenrick, Mulberries.

B. V. French, Cherries, Belle magnifique.

Hovey & Co., Grapes, Chasselas and Black Hamburg; white and red currants, fine.

M. P. Wilder, Black Mulberry, Late Duke Cherries; Apricots, open culture, large and fine.

J. F. Allen, Raspberries, Franconia, fine; Grapes, White Nice, Wilmot's Red Chasselas, Wortley Hall, Esperone, Portugal, Bar sur Aube; Sweet Montmorency Cherry.

A. D. Williams, White and Red Currants, fine.

George Walsh, Black Currants.

Azel Bowditch, Grapes, White Chasselas, Black Hamburg.

J. W. Foster, seedling Gooseberries.

A. D. Weld, White and Red Currants.

S. Dike, Cherries, White Figs.

F. W. Macondray, Peaches, Sharp's Seedling; Raspberries.

James Nugent, Grapes, Black Hamburg, and White Sweetwater, fine.

J. L. F. Warren, Seedling Cherries, fine; Franconia Raspberries, fine; Strawberries; Black Ischia Fig.

For the Committee,

F. W. MACONDRAY.

VEGETABLES.—From O. H. Mathers, by Thomas Needham, a brace of Walker's Prize Cucumbers.

From A. D. Williams, Cabbages and Tomatoes.

For the committee,

A. D. WILLIAMS, JR. *Chm.*

Exhibition of Saturday, July 29, 1848.

FLOWERS.—From M. P. Wilder, two large plants of Japan Lilies, Gloxinias, etc., also a variety of cut flowers, including new Gladioli and Phloxes.

From Winships, cut flowers, including Clematis in variety; also two handsome circular bouquets.

From F. R. Bigelow, two Cactus triangularis.

From Hovey & Co., six pot plants, and fine Verbenas and Pinks.

From Warren's Gardens, by John Cadness, a rich display of Greenhouse plants, including the following, some of them rare and beautiful and all well grown: *Stephanous floribun-*

dus, *Aristolochia candate* (new), *Veronica speciosa*, *Veronica lindleyana*, *Ixora rosea*, *Achimenes longiflora*, *Achimenes grandiflora*, *Vinca alba*, *Rondeletia speciosa*, *Stygnaphylon ciliatum* (new), *Fuchsias*, Smith's Queen Victoria, *gibbosa*; *Cacti* in variety; also bouquets and cut flowers.

Bouquets from James Nugent, John Kenrick by Miss Kenrick, Miss Russell and Azel Bowditch.

From William Mellar, cut flowers and bouquets.

From O. H. Mathers, by Thomas Needham, Lewis Davenport and Joseph Breck & Co., cut flowers in variety.

From Mrs. Ball Hughes, Dorchester, a bouquet of pressed flowers, in a frame and under glass, so finely dried, pressed and arranged as to resemble a finely executed painting.

AWARD OF PREMIUMS.

For the best pair of mantel bouquets, first premium to John Cadness, \$2.

Second, to William Mellar, \$1.

For the best pair of round or pyramidal bouquets, first premium to James Nugent, \$2.

Second, to A. Bowditch, \$1.

The Judges recommend a gratuity of \$5 to John Cadness for his fine display of greenhouse plants.

David Hagerston, W. Quant, S. Walker, judges.

The committee recommend a gratuity of \$1 to Miss Russell, for a large bouquet.

For the committee,

JOSEPH BRECK, *Chm.*

FRUITS.—Josiah Richardson, Plums called Early Golden Drop, supposed to be identical with the Jaune hative.

A. D. Williams and Son, Currants, Red and White Dutch; Pears, Citron des Carmes.

Azel Bowditch, Grapes, Black Hamburg, fine.

E. Brown, Lynn, Apples, Early Harvest; Cherries without name; Pears, two sorts, both for a name.

Warren's Gardens, Raspberries, Franconia.

J. F. Allen, Currants; Raspberries, Franconia, fine; Nectarines, Hunt's Early Tawney; Grapes, Muscat of Lunel, Esperone, Wilmot's Black Hamburg, fine, Nice, Ferral and Zinfandel.

A. W. Withington, Apples, Early Harvest and Red Astrachan; Blackberries, fine.

Otis Johnson, Blackberries; Pears, Citron des Carmes; Cherries, Mazard; Currants, White Dutch, fine; Grapes, White Muscat, Zinfandel, fine, Black Hamburg, fine.

Thomas Needham, Grapes, Cannonball Muscat, Golden Chasselas and Black Hamburg.

Samuel Bigelow, Grapes, Black Hamburg, fine.

Cheever Newhall, Pears, Citron des Carmes.

George Wilson, Currants, May's Victoria, very fine, White Dutch, very fine.

John Washburn, Apples, Red Astrachan.

Hovey & Co., Grapes, Putnam, White Chasselas, Chasselas Fontainebleau, Wilmot's Black Hamburg, very fine; White Frontignan, Muscat blanc hatif, Black Hamburg, Chasselas musque; Cherries, Lamerier; Pears, Doyenne d'Ete, a good summer pear.

Henry Vandine, Pears, Citron des Carmes; Apricots, Moorpark, and one sort unnamed.

Galen Merriam, Pears, Citron des Carmes

For the committee,

JOSEPH S. CABOT.

Exhibition of Saturday, August 5, 1848.

FLOWERS.—From M. P. Wilder, six plants fine new Gladioli, and cut flowers.

From Joseph Breck & Co., a great variety of cut flowers.

From Winships' nurseries, a fine specimen of *Erythrina cristigalli*, and Clematis; also bouquets.

From Otis Johnson, two bouquets.

From Azel Bowditch, one large pyramidal and six small bouquets.

From Francis Putnam, Salem, by John Sheehan, one pyramidal and two mantel bouquets.

From Warren's garden, by John Cadness, one plant of *Cestrum aurantium* (fine), two vase and six hand bouquets, with a great variety of cut flowers, including new Gladioli.

From Hovey & Co., fine specimens of *Trachymene carulea*, and Phlox in variety.

From G. Gilbert, Plymouth, a large quantity of the beautiful native plant *Sabbatia chloroides*, two varieties, *Orebia blephariglotis* and *ambriata*, *Lobelia cardinalis* and *Solidag o.*

From William Kenrick, by Miss Russell, six bouquets and a basket of flowers.

From John A. Kenrick, by Mrs. Kenrick, a neat basket of flowers.

From James Nugent, one pyramidal and fine hand bouquets, with a variety of cut flowers

From Lewis Davenport, Milton, Roses, Verbenas, Dahlias, etc.

From James Cruikshanks, new *Convolvulus minor* (beautiful,) and Sweet Peas.

AWARD OF PREMIUMS.

For the best pair of mantel bouquets, to John Cadness, \$2.

For the second, to Messrs. Winslip, \$1.

For the best pyramidal bouquet, to James Nugent, \$2.

For the second, to John Sheehan, \$1.

James Cruikshanks, S. Walker, J. Breck, judges.

The committee recommend a gratuity of one dollar each to Miss Russel and Mrs. Kenrick, for baskets of flowers.

JOSEPH BRECK, Chn.

FRUITS—Otis Johnson, Apples, Red Astrachan, very fine; Figs, Black and St. Michael's; Grapes, Zinfindal and Black Hamburg, fine; Pears, Citron des Carmes.

A. W. Withington, Apples, Red Astrachan, Early Harvest, Benoni and Sine qua non, small.

J. Owen, Apples, Early Harvest.

J. Eustis, Apples, Early Harvest.

F. Dana, Apples, Sopsavine and Garretson's Seedling. (?)

A. D. Williams & Son, Apples, William's Favorite, Early Bough, Red Astrachan, Early Harvest, Dutch Codlin, and one other sort; Currants, Red Dutch; Pears, Sugar-top and one other sort unnamed; Plums, American Yellow Gage, also Jargonelle Pears, very fine.

Henry Vandine, Apriquets, Moorpark and Breda; (?) Pears, Citron des Carmes.

J. S. Cabot, Pears, Citron des Carmes and Doyenne d'Ete. Josiah Lovett 2d, Pears, Citron des Carmes, fine; cultivated Blackberries, very fine.

W. C. Strong, Plums, two sorts, Nectarine and Royal Hatif, (?) large and fine in appearance.

J. F. Allen, Peaches, Pot, (?) Tippecanoe and one other sort not named; Grapes, White Nice, Wilmot's New Black Hamburg, Ferral and others; Raspberries, Franconia; Nectarines, Hunt's Early Tawney.

Cheever Newhall, Grapes, Zinfindal and Black Hamburg, Azel Bowditch, Grapes, Lombardy and Black Hamburg.

Hovey & Co., Grapes, Chasselas, Fontainebleau, Wilmot's Black Hamburg, Black Hamburg, White Frontignan, Muscat blanc hatif, fine.

Samuel Walker, Pears, Jargonelle, fine, Belle de Bruxelles, B. V. French, cultivated Blackberries, fine.

Galen Merriam, cultivated Blackberries, very fine.

For the committee,

JOSEPH S. CABOT.

Exhibition of Saturday, August 12, 1848.

FLOWERS.—The scorching heat of the past week was most unfavorable for a good exhibition of flowers. It was however, much better than could have been expected. There were many fine Phloxes, Gladioli, Balsams, and other flowers of the season. In the stand of the President of the Society, we noticed a fine bloom of the new Dahlia Berryer, one of the crack flowers of this tribe, for the present year—very fine shape, color rich black maroon

John Cadness made a grand display of Gladioli and other flowers from Warren's garden; two large flat bouquets, very fine and numerous hand bouquets

Joseph Breck & Co., made their usual display of cut flowers, including a great variety of Phloxes and other perennials and annuals.

There were also cut flowers in great variety from Thomas Needham, Parker Barnes, Lewis Davenport, James Nugent, and others

John Parker of Roxbury exhibited some fine Dahlias; very good flowers were noticed in most of the collections.

From Miss Russell, a fine pyramidal bouquet, bouquets also from A. Bowditch and J. Nugent.

AWARD OF PREMIUMS.

For the best display of Balsams, first and only premium to Thomas Needham, \$3.

For the best pair of Mantel bouquets, first premium to John Cadness, \$2.

Pyramidal ditto, first to James Nugent, \$2.

Second, to Miss Russell, \$1.

The committee recommended a gratuity of \$3 to John Cadness, for a grand display of Gladioli, *Gondiensis*, *floribunda*, *belvideros*, *Petunias*, etc.

Also to Miss Mary Kenrick, for a basket of flowers very neatly arranged, a gratuity of \$1.

FRUITS.—Otis Johnson, Apples, Red Astrachan, very fine, Early Bough; Pears, Jargonelle of the French, Jargonelle English.

John Washburn, Plymouth, Apples, Horseblock Sweeting, seedling apple (handsome,) Pears, Bloodgood.

Josiah Lovett, Blackberries extra fine.

C. M. Richards, Christiana Melons.

J. Fisk Allen, Grapes, Portien Noir

Messrs. Hovey & Co., Peaches cultivated in pots, very fine, two varieties; Grapes, Wilmot's Black Hamburg, White Frontignan, Chasselas Fontainebleau, Black Hamburg, Red Chasselas, Chapin (new) Chasselas, Musque Muscat B. Hatif, Figs, Brunswick, White Marseilles, Black Ischia, Bronze Turkey.

J. L. F. Warren, Apples, Early Harvest and River.

Garden of Lunatic Asylum, Louis Philippe Plums.

A. D. Williams & Son, Pears, Jargonelle Katers, five varieties of early Pears, no name; Williams and three other varieties; Plums, three varieties; Currants.

Samuel Walker, Pears, Belle de Bruxelles, Jargonelle English.

John S. Sleeper, Plum, Early Apricot.

Galen Merriam, Pears, Jargonelle of the French.

Marshall P. Wilder, Pearst Beurre d'Allemagne, French Jargonelle, Belle d'Aout, Bloodgood

J. Owen, Pears, Crawford, English Jargonelle, French Jargonelle, Plums, no name.

Azel Bowditch, Grapes, Lombardy and Black Hamburg.

E. Brown, Lynn, Apples, Early Harvest; Pears, English Jargonelle.

Messrs. Breck and Co., Belle d'Aout.

Cheever Newhall, Apples, Curtis Stripe, Summer Rose.

Messrs. Hyde, Apples, Orange Sweeting and Williams.

James Nugent, three varieties of Grapes.

Henry Vandine, Plums, Italian damask, Early Yellow Gage, Yellow Honey, Royal d'Tours one variety unnamed; Pear, French Jargonelle.

F. W. Macondray, Pears, French Marie Louise, Julien; Jargonelle, Black Hamburg Grapes; Coolidge's Favorite.

For the committee,

F. W. MACONDRAY.

VEGETABLES.—O. N. Lane, by A. Bowditch, Broad Windsor beans.

For the committee,

A. D. WILLIAMS

Exhibition of Saturday, August 19th, 1848.

FLOWERS.—From M. P. Wilder, President of the Society, and Joseph Breck & Co., a great variety of Phloxes, Dahlias, and other cut flowers.

From Hovey & Co., Phloxes.

From James Nugent, Phloxes; 1 round, 2 mantel and 6 hand bouquets.

From Warren's Gardens, by John Cadness, cut flowers, pot plants, two large mantel and six hand bouquets.

From O. H. Mathers, by Thomas Needham, Phloxes, Balsams, &c.

From William Kenrick, by Miss Russell, two baskets of flowers, and five bouquets.

AWARD OF PREMIUMS.

For the best 10 varieties of Phloxes, 1st premium to Joseph Breck & Co., \$6.

For the second best variety, a premium to Hovey & Co., of \$4.

For the third best variety, a premium to James Nugent of \$3.

For best Mantel Bouquets, 1st premium to John Cadness, \$2.

For the second best, a premium to James Nugent, of \$1.

For the best Pyramidal do., a premium to James Nugent, of \$2.

William Quant, Alexander McLennan, Judges.

The committee recommend a gratuity to Miss Russell, for baskets of flowers, of \$1.

JOSEPH BRECK, Ch'n Flower Committee.

FRUITS.—From Eben Wight, Pears, Julienne.
W. C. Strong, Plums, Blue Perrignon (?) Nectarines,
Etruge.

F. W. Macondray, Pears, Espredon, Jargonelle.
Joseph Burnett, Apples, Purnwater, fine.
Charles H. Pendleton, Apples, Summer Greening.
A. D. Williams & Son, Apples, Williams, fine Plums, for
a name. Pearl, Jargonelle, fine, Dearborn's Seedling.
Emery Bemis, Plums, Royal de Tours, fine.
E. Brown, Pears, Jargonelle, Dearborn's Seedling.
Breck & Co., Plums, Royal de Tours. Pears, Belle de
Bruxelles.

Ralph Crooker, Plums, Royal Hatif.
A. D. Weld, Apples, Williams, fine.
John Washburn, Apples, Horse Block, (fine,) from the
original tree.

B. D. Emmons, Grapes, White Chasselas.
Azal Bowditch, Grapes, Black Hamburg.
Samuel Walker, Chelsea, Plums, Nectarine, fine.
Samuel Walker, Roxbury, Pears, Tyson, Summer Franc
Real, Passans du Portugal, and one dish without a name,
Hampton's Bergamot.

From Warren's Gardens, Figs, Brunswick, Lee's Perpetual
Hovey & Co., Peaches, six dishes, fine; Grapes, eleven
varieties.

O. H. Mathers, by Thomas Needham, Grapes, 8 varieties.
Anson Nickerson, Pears, Jargonelle, extra fine.

Otis Johnson, Apples, Yellow Siberian Crab, Early Bough,
fine, Red Astrachan, fine, Summer Pearmain, 1 dish without
a name; Pears, Bloodgood, fine, Dearborn's Seedling, August
Muscat, Rostiezer, delicious, though premature, Jargonelle;
Plums, Fotheringham; Nectarines, Early Newington, beautiful
specimens of this desirable variety; Figs, Black St. Michael.

M. P. Wilder, President, Pears, Passans du Portugal, and
Franc Real (Summer)

B. V. French, Apples, River, Garden Royal, Early Strawberry.

Charles Downing, by Mr. French, Apples, Summer Rose,
Dodge's Early Red, Tart Bough, (passed eating.)

Dr. W. B. Brinkle, Corresponding Member, Pears, Ott's
Seedling, (a native) a pear of superior quality, Steummetzer's
Catharine, worthy of a further trial, Copia (Copia improperly,
having been raised by and named for a Mr Copia)

For the Committee, EBEN WIGHT.

VEGETABLES.—From G. C. Crowninshield, by John
Quant, Egg Plants and Tomatoes.

For the Committee, A. D. WILLIAMS, Jr.

Exhibition of Saturday, August 26, 1843.

FLOWERS.—From M. P. Wilder, Japan Lilies, grown out
doors, which stood the winter without protection. The
hardiness of these beautiful and fragrant flowers will be a
source of gratification to amateurs, as they will be a great ac-
quisition to the borders. Also a great variety of fine Paloxes,
Dahlias, &c.

From James Nugent, one pyramidal, six hand, and two
mantel bouquets; also a fine assortment of cut flowers.

From John Kenrick, by Miss Mary Kenrick, a basket of
flowers.

From Parker Barnes, fine Dahlias, cut flowers, and six pot
plants.

From Warren's Gardens, by John Cadness, two large and
eight hand bouquets, and a great variety of cut flowers.

From G. C. Crowninshield, by John Quant, six pot plants,
From Wm. Kenrick, by Miss Russell, one pyramidal, and
three mantel bouquets.

From Isaac Spear, German asters,
From Lewis Davenport, roses and fine Dahlias.

From Joseph Breck & Co., a great variety of cut flowers.
From John Parker, fine Dahlias.

AWARD OF PREMIUMS.

For the best pair of Mantel Bouquets, 1st premium to John
Cadness, \$2

Second do., to James Nugent, \$1.

For the best Pyramidal bouquet, 1st premium to James
Nugent, \$2.

Second do., to Miss Russell, \$1

For the best six varieties of pot plants, 1st premium to
John Quant, \$2.

The Committee recommend a gratuity to Parker Barnes,
for six Pot Plants, \$1.

To Mary Kenrick, for a basket of Flowers, \$1.
For the Committee, JOSEPH BRECK, Chairman.

FRUITS.—A. D. Williams & Son, Apples, Williams, Por-
ter, Fall Sopsavine, Pumpkin Sweet, Alexander; Pears,
Orange, Vienna, Rousselet de Rheims, Harvard, Beurre
d'Amalis, William's Early, Seedling, and three unnamed.

George Bartlett, Apples, for a name, unknown.

John Was burn, Apples, Monamet, heretofore called
Horse-block apple, is very fine.

Otis Johnson, Apples, Summer Pearmain; Pears, Belle
et Bonne, Bloodgood, Dearborn Seedling, Summer Franc
Real, and Rostiezer; Figs, Black Fig of St. Michaels.

M. P. Wilder, President of the Society, Apples, Garden
Royal, handsome; Pears, Striped Beurre d'Amalis, Belle
d'Aout, Bloodgood, Dearborn's Seedling, and one received
from France as Marie Louise

Samuel Hill, Plums, Black Imperial, fine

Messrs Brick & Co., Pears, Belle d'Aout.

Winship & Co., Pears, Summer Franc Real, and five
others

F. W. Macondray, Pears, Beurre d'Amalis, Summer Rose,
Arch Duke Charles; Grapes, Black Hamburg.

S. R. Johnston, Plums, Bolmar's Washington, fine.

George Walsh, Plums, Green Gage.

Warren's Garden, Pears, Dearborn's Seedling

James Nugent, Pears, Bartlett; Grapes, Black Hamburg,
fine, and Sweetwater.

W. C. Strong, Nectarines, fine.

Isaac Fay, Plums, Yellow Gage, and one other sort.

Samuel Walker, Apples, Crab, a new variety; Pears,
Hampton, Bergamo, (handsome, not first rate—good for
market.) Rostiezer, Summer Franc Real, Passans du Portu-
gal, Summer Rose, Vallee Franche, Flemish Beauty, Wil-
liams' Early; Plums, Bolmar's Washington.

Hovey & Co, Figs, White Ischia. White Marseilles, extra
fine, Brunswick, Brown Turkey; Grapes, Wilmot's Black
Hamburg, Black Hamburg, Grissy Frontignac, White
do., Muscat Blanc Hatif, Red Chasselas, and three others.

Nahum Stetson, Figs, Brunswick; Grapes, Red Chasse-
las, Pimston, White Cluster, White Muscadine, Muscat,
Malvasia, Macready's Early White

O. H. Mathers, by Thomas Needham, Grapes, B. Franken-
dal, Muscat of Alexandria, B. Hamburg Grissy Frontignac,
Frontignac, Golden Chasselas, B. Lombardy, Chasselas Fon-
tambaeu, Chasselas Musque, De la Palestine, one sort un-
named.

G. C. Crowninshield, by John Quant, Melon.

Henry Vandine, Plums, Early Yellow Gage, Washington,
Italian Damask, Ponds's Seedling, Wilmot's Early Orleans,
Black Imperial, Prince's large Yellow Gage, and Green
Gage.

J. S. Sleeper, Plums, Smith's Orleans, Yellow Gage; Pears,
Summer Rose.

S. Downer, Jr, Pears, Gros Roi Louis—not worthy cul-
tivation.

Emery Bemis, Pears, Dearborn's Seedling, Muscadine.

J. F. Allen, Nectarines, Downton, Hardwick Seedling,
Roman, fine, Hunt's Early Tawney, Temple's, very fine;
Peaches, Yellow Rarerie, New Jersey Gros Mignonne,
Coolidge's Favorite, fine Old Royal George, fine, Gros Mig-
nonne True, fine, Hoffman's Favorite, fine, Violet Hatif,
Tippecanoe; Plums, Green Gage; Pears, Tyson, Passans du
Portugal, S. Franc Real, Hammers; Grapes, Portia Noir,
Wortley Hall Seedling, Ferral, White Nice, Golden Chas-
selas

Robert Watt, Apple for a name. Beauty of Kent?

Azel B. Welch, Grape, Black Hamburg.

J. Owen, Plums, Green Gage, P. Imperial Gage, Jefferson,
Bingham, Lawrence Favorite, Columbia, Washington, Dam-
sons, and one for a name; Apples for a name; Pears do.

Eilwanger & Barry, Rochester, N. Y., Pears sent as
Belle de Bruxelles, same as Belle d'Aout, has been cultiva-
ted here for several years, and these, as all other specimens
have been, were utterly worthless.

Pomological Garden, Salem, R. Manning, Pears, Rostiezer,
Elizabeth, and unknown, from Van Mons.

N. P. Smith, Grooten, Apples, Foundling, a good apple, and
covering over 60 days in its ripening

For Committee, JOSEPH S. CABOT.

VEGETABLES.—From F. W. Macondray, Lima Beans,
From G. C. Crowninshield, by John Quant, Lima Beans.

For the Committee, A. D. WILLIAMS, Jr.

Exhibition of Saturday, September 2nd, 1848.

FLOWERS.—Fine Bouquet of indigenous flowers from S. G. Swan, of Medford.

From James Nugent, six hand and two flat bouquets, also one round bouquet and cut flowers.

From George C. Crowninshield, by John Quant, one pyramidal bouquet.

From William Kenrick, by Miss Russell, three bouquets and a basket of flowers.

From John Calness, two flat and seven hand bouquets, also cut flowers.

From John Kenrick, by Mrs. Kenrick, a basket of flowers.

From J. Breck & Co., a large variety of cut flowers.

From Lewis Davenport, a lot of cut flowers.

From Isaac Spear, an assortment of Asters.

From John Parker, an assortment of Dahlias.

For the Committee, JOSEPH BRECK, *Ch'n.*

FRUITS.—From Otis Johnson, Pears, Vallee Franche. Belle et Bonne, Beurre d'Amalis, Dearborn's Seedling.

A. D. Williams & Son, apples, Williams, and two vars. for name; Pears, William's Bon Chretien, Orange, Fondante d'Automne, Harvard, Juliette, Summer Franc Real.

Breck & Co., Pears, Summer Franc Real and Harvard. Galen Merriam, Peaches, Jaques and Coolidge's Favorite;

Pears, William's Bon Chretien. Thomas Needham, eight vars Grapes, names mentioned in previous reports.

W. C. Strong, by John Donald, ten dishes of Grapes in var; Nectarines in var.

George Walsh, Plums, Green Gage; Pears, William's Bon Chretien.

J. F. Allen, Peaches, Manning, Crawford's late, Violet Hatif, Crawford's Early, Grosse Mignonne, Yellow Rare-ripe, New-Jersey Grosse Mignonne, Royale, Tippecanoe, Coolidge's Favorite, Nectarines, Roman, Violet Hatif, New-ington, Boston; Plums, Green Gage; Pears, Dearborn's Seedling, Passans de Portugal, Summer Franc Real, Hannas, William's Bon Chretien; Grapes, Golden Chasselas.

Messrs. Liversedge, Grapes, Black Hamburg, from two years planted vines, bunches very large, berries not well colored.

Hovey & Co., seven vars. of Grapes, would make a much better appearance if pains were taken to preserve the bloom; Figs, White Marseilles, Brown Turkey, Black Ischia, and one other var.

James Nugent, Plums, Imperial Gage; Grapes, Black Hamburg and Sweetwater.

Warren's Garden, Apples, Minister, Parkman's Favorite, Porter, Esopus, Vandevere, Capen Apples, Red and Yellow Siberian Crabs; Pears, Dearborn's Seedling, fine, William's Bon Chretien, Winship's Seedling, Summer Bergamot, Stone Pear, Saint Ghislain, and Washington; Plums, Duane's Purple, Kirk's New, Pond's Seedling, Diamond, Yellow Gage, Green Gage, Smith's Orleans; Nectarines, Breda; Grapes, Black Hamburg, and two baskets of assorted Fruits.

George Wilson, Plums, Smith's Orleans, Kirk, Green and Imperial Gage.

John Parsons, Plums, Imperial Gage, Bingham, and Washington.

William W. Merritt, Plums, White Gage, and Washington; E. Bradshaw, Plums, Black Imperial, and Washington, fine.

J. S. Sleeper, Plums, Imperial Gage, Violet Gage, Smith's Orleans; Pears, Harvard.

Messrs. Winship, Pears, Winship's Seedling, Washington, and two varieties for name.

S. R. Johnson, Plums, Bolmar's Washington, fine. Henry Vandine, Smith's Orleans, Green Gage, Imperial Gage, Prince's Yellow Gage, Coe's Golden Drop, Red Magnum Bonum, Hulen's Superb, Lombard's Seedling, Early Yellow Gage, Corses Admiral; Pears, Green Sugar.

S. Walker, Pears, Belle de Bruxelles or Belle de Aout; Plums, Green Gage, extra fine, Washington, Bingham; Nectarines, White, new; Pears, Tyson, William's Early.

Josiah Richardson, Plums, Diamond, Smith's Orleans, Duane's Purple, Imperial Gage; Pears, Williams' Bon Chretien, Flemish Beauty.

F. W. Macondray, Coolidge's Favorite Peach. A. Bowditch, Grapes, Black Hamburg; Figs, Black St. Michael.

B. D. Emerson, White Sweetwater Grapes, fine. Fruits tested Sept. 2d, 1848:

From J. F. Allen, Peach, Manning, a Seedling. From John Owen, Seedling Peach.

M. P. Wilder, President, Pears, Beurre Opremont, (new,) worthless, Count de Frittilley, (new,) Beurre Goubault, (new,) Epine Dumas, Colmar d'Ete, (new,) Arch Duke, Charles, (new,) Souverain d'Ete, (new, fine,) Doyenne Boussock, which proves to be the same pear as those exhibited in former years as an unknown variety, from Dorchester, Providence and Plymouth; large size, flavor excellent; may be classed as one of the best pears of the season.

Hovey & Co., Pears, Bergamot, Fieve, Beurre Beaumont. Cheever Newhall, Pear for a name.

Messrs. Winship, Winship's Seedling Pear. Robert Manning, Pears, St. Germain d'Ete, (new,) good, and an unknown variety from Von Mons, highly flavored.

For the Committee, DAVID HAGGERSTON.

AWARD OF PREMIUMS.

The first premium to A. D. Williams & Son, for the Jargonelle Pear.

The second premium to Otis Johnson, for the Bloodgood Pear.

And the special premiums:

To A. D. Williams, for the Jargonelle.

To Otis Johnson, for the Bloodgood.

For the Sub-Committee, F. W. MACONDRAY.

Accepted by the Fruit Committee, S. WALKER, *Ch'n.*

The Sub-Committee on Blackberries recommend the first premium to Josiah Lovett, 2d.

The second premium to M. Withington.

For the Sub-Committee, OTIS JOHNSON.

Accepted by the Fruit Committee, S. WALKER, *Ch'n.*

VEGETABLES.—From Merrill W. White, Okra, the flower and leaf culled at the South.

From James Cruikshank, a brace of Douglass Champion Cucumbers, (new.)

From William A. Pierpont, Beets.

For the Committee, A. D. WILLIAMS, JR.

THE

HORTICULTURIST ADVERTISER.

Advertisements inserted on the following terms :

Each insertion, one page,	\$5 00
Do half page,	3 00

FRUIT AND ORNAMENTAL TREES.

THE subscribers wish to inform their customers, and the public, that they have now on hand, and will offer for sale during the ensuing planting season, a large stock of Fruit Trees, consisting, in part, of

50,000	Apple Trees, suitable for orchard planting.		
20,000	Pear Trees,	do.	do.
15,000	Cherry Trees,	do.	do.
15,000	Peach Trees,	do.	do.

Besides large quantities of

APRICOTS, PLUMS, NECTARINES, QUINCES, GRAPES,
AND ALL THE SMALL FRUITS.

The trees are vigorous and healthy ; and the collection comprises all the leading standard sorts, as well as nearly all the rare and choice ones recently brought to notice. All have been propagated under the personal supervision of the proprietors, whose care, experience, and entire devotion to the business give the public a reasonable guarantee for accuracy. A large share of attention is paid to the culture of GARDEN FRUIT TREES.

And the stock of *Apples on Paradise Stocks—Pears on Quince—and Cherry on Mahaleb*, is probably the largest in the Union.

All the famous Native Fruits of western New-York can be supplied genuine, propagated from the bearing trees. Immense quantities of young trees, suitable for distant transportation, can be supplied.

The stock of Ornamental Trees is very large ; and quantities for planting streets, public grounds, &c., or to dealers, can be furnished very low.

Hedge plants can also be furnished by the 10,000 or 1,000—comprising,

NORWAY SPRUCE, ARBOR VITÆ, HEMLOCK, RED CEDAR, ENGLISH AND AMERICAN THORN, BUCKTHORN, OSAGE ORANGE, HONEY LOCUST, PRIVET, &c.

50,000 Plum Seedlings, one year old.

30,000 Quince of the best sort for pear stocks. Besides large quantities of Rhubarb, Asparagus, Sea Kale, and all other articles in the nursery line, at reduced rates.

Trees and Plants will be packed in the best manner, and shipped to any part of the Union. A new Catalogue for 1848 and '49 is just published, and will be sent gratis to all post-paid applicants.

Wholesale Catalogues sent when desired. Orders should be forwarded immediately. Address
ELLWANGER, BARRY & ROWE,
Mt. Hope Garden and Nurseries,

Rochester, N. Y. Sept. 1, 1848—2t.

DUTCH BULBOUS FLOWER ROOTS.

THE subscribers have just received from Amsterdam their annual importation of Bulbs, the most varied, choice and complete assortment ever sent to this country. Having for years past imported without regard to cost, and tested in their garden at Astoria, every new and valued variety of this gem of spring flowers, and after blooming, selected only such as proved really fine to place in their annual catalogue, they are emboldened to recommend the present importation as unrivalled. The Bulbs, too, are of unusual size, sound and well cured. They confidently recommend the following for *flowering in glasses*, being the sorts best adapted for that purpose.

Price \$3 per dozen, viz:

BLUES—Lord Wellington, Pronkjuweel, Lâmi de Cœur, Fleur Parfait, Alamode, Passetout.
RED, ROSY AND CRIMSON—Bouquet Tendre, Comtesse de la Coste, Panorama, Il pastor fido, Rose Mignone, Grootvoorst, Princesse d'Esternazy.
WHITES—La Déesse, Nanette, Grand Vainqueur, Anna Maria, Penelope, Sophie, Passe Virgo, Perianther, Triumphe Blandina.
YELLOWs—Bouquet Orange, La Favorite, Gold of Ophir.
 For Pots, all the above are good, with the following, at

\$4 per dozen, viz:

BLUES—Prins Von Saxe Weimar, Martinet, Duc de Normandie, Mignon de Dryfhout, Prins Alfred, Rudolphus, L'Envoÿe, Voltaire, Orondatus, Emilius.
RED, ROSY AND CRIMSON—Madame Zoutman, Madelaine, Lord Castlereagh, Rouge Jolie.
WHITES—Grande Blanche Imperiale, La Candeur, Sceptre d'or.
 The following are of superlative beauty and size, and are particularly recommended to amateurs:

Price \$8 per dozen, viz:

BLUES—Bonaparte, Laurens Kostar, Prolifera Monstrosa, Pourpre Superb, Comte d'Artois, Mehemet Ali, Grande Vedette, Baron Tuyl, Prins Albert, Noir incomparable.
REDS, &c.—La Volupté, Madame Catalini, Gloriosa, Sans Souci, L'Eclair, Cochenelle, La Dame du Lac, Tubiflora, Souvenir, Mars, Henrietta Sontaag, Dibbitz Sabalkanski.
WHITES—Miss Kitty, Prince of Waterloo, Non Plus Ultra, Virgo Vestalis, Gloria Forum Suprema.
YELLOWs—Isabella, Princesse d'Orange, with several other of the very choicest sorts at from *fifty cents to one dollar each*.

A good dozen of Hyacinths for \$1.50, mixed sorts, but colors distinct. 100 Fine Hyacinths in fifty named sorts, for \$18; \$10 for fifty.

Also Grape Hyacinths, 3 colors; Nutmeg scented, (Dipcade major,) and Feathered Hyacinths, curious and pleasing varieties, the former \$1, the latter \$2 per dozen.

Superb Lake Amateur's Tulips, by name, \$3 per dozen, or \$20 per 100. Good Bizarre, by bloom and Rosy on white grounds, \$1.50 per dozen; Double Tulips by name, \$2.50 per dozen; Double Yellow Rose scented, Parrot and Early Mixtures, \$1.50 per dozen; Double Rex Rubrum, do., nearly as large as Pæonias of bright crimson color, \$2 per dozen.

Early Tulips bloom out of doors in April, and enliven the parterre with their gaiety when but few flowers are out.

A great variety of Crown Imperials, a stately Bulb, greatly admired, and increase freely; Double Snow Drops; Crocus, many sorts; Gladiolus Byzantium; Iris, of sorts; Double Narcissus, 6 sorts; Double Jonquilles; Fritillaries; Double Anemones and Ranunculus; Pæonias, many sorts. Also, Sparadis tricolor, and Peacock Iris, splendid winter flowering bulbs; Cape Ixias, 12 sorts; Colchicums; Autumnal Crocus; Polyanthus Narcissus, 50 sorts.

All the above are in season for planting from now till 1st December, (or as long as the ground is open) will endure the winter in any part of the state without protection, (except the Ixias, Peacock Iris and Polyanthus Narcissus.) Full directions for culture sent with every package, containing minute hints on both in and out door treatment.

A collection of Oxalis, Ciclamens and Lachenalias, in pots, 50 cents each, and which bloom in doors all winter.

CROCUS POTS, BULB GLASSES AND FANCY FLOWER POTS.

Orders from a distance carefully attended to and promptly despatched. Where the selection of Hyacinths, Tulips or other bulbs is left to the subscribers every care will be taken, and a liberal selection made when the price is limited.

JAMES M. THORBURN, & CO.,
 15 JOHN-STREET NEW-YORK.

 Cases of assorted Bulbs of different sizes, suitable for nurserymen, or for retail. 

Early Cauliflower, of the best London sort, Early Walcheren Cauliflower and Broccoli, with twenty new varieties of Broccoli, grown in the north of England. Fine Early and Large York, Early Oxheart and Early Sprotsboro Cabbages. White Coss Lettuce, and others suitable for Fall sowing, to winter over the plants.

OCTOBER 1, —2m.

PARSONS & CO.,

Invite the attention of Dealers and Amateurs to the large and excellent stock of trees at their

COMMERCIAL GARDEN AND NURSERY, AT FLUSHING,

(*Near New-York.*)

THE personal attention of the proprietors to the propagating department, and their possession of well-arranged specimen grounds enable them to ensure the correctness of the varieties which they cultivate. Their fruit department contains of

APPLES—210 varieties, of which among the best are Early Harvest, Strawberry, Autumn Bough, Maiden's Blush, Willis' Sweeting, Fameuse, Porter, Gravenstein, Sturmer Pippin, Tower of Glammis, Northern Spy, Yellow Bellflower, Baldwin, Hubbardston Nonsuch, Herefordshire Pearmain, Peck's Pleasant, Swaar, Rhode Island Greening, Newtown Pippin, White Seek-no-further, &c., &c.

PEARS—180 varieties, including Bartlett, Madeleine, Summer Francreal, Beurre d'Amalis, Dix, Fondante d'Automne, Louise Bonne de Jersey, Duchesse d'Angoulême, Easter Beurré, Columbia, Beurre d'Arenberg, Lawrence, Vicar of Winkfield, &c., &c.

CHERRIES—70 varieties, including Black Eagle, Downer's Late Red, Black Tartarian, Elton, Bigarreau, Early Richmond, Mayduke, Belle de Choisy, &c. &c.

PLUMS—75 varieties, including Imperial Gage, Jefferson, Yellow Gage, Washington, Smith's Orleans, Duane's Purple, Ickworth, Imperatrice, Luscombe's Nonsuch.

PEACHES—80 varieties, including Crawford's Early, Crawford's Late, Early Tillotson, Early York George 4th, Late Admirable, White Rareripe, Royal George, White Imperial, Heath Cling, Old Mixon Cling, &c., &c.

NECTARINES—14 varieties, including Boston, Violet Hative, Red Roman, New White, Hardwicke's Seedling, &c. &c.

APRICOTS—14 varieties, including Early Peach, Moorpark, Schuyler's Large, Dubois' Golden, Large Red, &c.

ALSO—QUINCES, GRAPES, FIGS, ALMONDS, WALNUTS, RASPBERRIES, CURRANTS, STRAWBERRIES, ESCULENT ROOTS, &c.

THE ORNAMENTAL DEPARTMENT

Comprises all the most desirable Ornamental Deciduous, and Evergreen Trees and Shrubs, Vines, Creepers, &c., in some 800 varieties, many of which are new and rare, and valuable for arboretums.

ALSO—ROSES, HEDGE PLANTS, &c.

Catalogues furnished GRATIS on application by mail at Flushing, or personally at 10 Pine-street, New-York.

OCTOBER 1,—1m.

BRANCH NURSERY OF PARSONS & CO.,

AT BRIGHTON DEPOT,

(*Near Boston.*)

THE Proprietors invite the attention of their Eastern friends to their grounds at Brighton, to which they have transferred a large assortment from their establishment at Flushing. The entire success of the trees transplanted there the past season, enables them to recommend this stock with confidence.

OCTOBER 1,—1m.

FISHKILL LANDING NURSERY;

Two and a half miles north from the Newburgh Ferry.

FRUIT AND ORNAMENTAL TREES.

THE subscriber respectfully solicits the attention of Fruit Growers, and Dealers in Fruit Trees, to the large stock offered for sale by him this fall, consisting of

TWENTY THOUSAND APPLE TREES,

of the most approved varieties, from 4 to 8 feet high, at from \$15 to \$20 per hundred.

TEN THOUSAND PEAR TREES,

embracing one hundred of the best varieties to be found, 3 to 7 feet high,—\$25 to \$34 per hundred.

EIGHT THOUSAND CHERRY TREES,

from one to three years from the inoculation, 4 to 10 feet high,—\$34 per hundred.

TEN THOUSAND PLUM TREES,

strong and healthy, from one to three years from the buds, 4 to 8 feet high,—\$34 per hundred.

FIVE THOUSAND APRICOT TREES,

of the best sorts, on peach and plum stocks; two thousand of which are the Early Golden, a very hardy and productive variety, one to three years from the buds,—\$12.50 on peach, \$34 on plum stocks, per hundred.

THIRTY THOUSAND PEACH TREES.

of the most valuable sorts, entirely free from disease, one to two years from the inoculation,—\$6 to \$8 per hundred.

EIGHT THOUSAND ISABELLA AND CATAWBA GRAPE VINES,

two to four years old, with five roots. They have been annually cut back, and in excellent condition for vineyard planting. \$12 to \$18 per hundred. Also,

ONE THOUSAND QUINCE TREES, mostly of the Apple variety.

Currant and Raspberry Bushes, Strawberry Vines, &c., together with about 10,000 Deciduous and Evergreen Ornamental Trees, many of which are extra large.

The subscriber is induced to sell at the very low prices above named, in consequence of his stock being very large. All those who are about planting Orchards, starting Nurseries, or engaged in the sale of Trees, are invited to visit and inspect his stock.

The Fruit Trees have been inoculated under the immediate inspection of the proprietor, and mostly from trees in his own grounds, and are of the

MOST VALUABLE STANDARD SORTS.

From 40 to 50 acres, attached to the Nursery, are closely set with standard and specimen Trees, which greatly increase his facilities for the attainment of correctness.

The New and Valuable PEACHES,

which have, within a few years past, originated at the South, as well as the

Choice APPLES of the West,

have been propagated, and are of a fine size for transplanting.

TREES, SHRUBS, AND VINES,

when ordered, will be taken up carefully, and packed, so as to be sent safely to any part of the Union.

Catalogues sent to all post paid applicants. Orders, by mail or otherwise, will receive immediate attention.

DAN'L BRINCKERHOFF.

Fishkill Landing, Dutchess county, N. Y., October 1, 1848—1t.

NEWBURGH NURSERY.

FRUIT TREES.

THIS Nursery contains a general assortment of fine thrifty trees, consisting of

*RASPBERRIES, GOOSEBERRIES, STRAWBERRIES, APPLES, PEARS, PLUMS,
PEACHES, CHERRIES, APRICOTS, NECTARINES, &c.*

of the most approved kinds. Also, many that are new and rare, of recent introduction.

All orders (post paid,) will be carefully attended to by the Proprietor. Catalogues sent, on application.

CHAS. DOWNING.

Newburgh, Orange county, N. Y., Oct. 1, 1848—2t.

FRUIT TREES FOR SALE.

THE subscriber has for sale, at his nursery (Fishkill Landing, Dutchess county, N. Y.,) a general assortment of Fruit Trees, embracing many of the most valuable kinds of
APPLE, CHERRY, PEACH, PLUM, PEAR, NECTARINE, AND APRICOT TREES.

And a large quantity of the Market Fruit Trees ; among which are the
*FROST PLUM, NAPOLEON CHERRY, RHODE ISLAND GREENING, NEWTOWN
PIPPIN, AND BALDWIN APPLE, ISABELLA GRAPE VINES,
AND ORANGE QUINCE BUSHES.*

And a splendid lot of the

EARLY GOLDEN APRICOT TREES.

This Apricot still maintains its high reputation, having withstood the severe frost of last spring, which killed the fruit buds of several kinds of the Peach and Apricot trees. These trees have been sent, within the last year, to all latitudes of the United States ; and from the extreme parts, they give the most promising prospects of success.

Also, a few thousand

FIR, AND AMERICAN LINDEN TREES.

Trees will be sold on as low terms, and packed in as careful manner, as any other establishment of the kind. When desired, small trees will be supplied at corresponding prices. Catalogues sent to all applicants.

CHARLES DUBOIS.

Fishkill Landing, Sept. 14, 1848—o.1t.

FRUIT TREES, &c.

THE subscriber offers for sale from

TWELVE TO TWENTY THOUSAND FRUIT TREES,

Consisting of all the best varieties of the

PEAR, APPLE, PLUM, AND CHERRY.

Many of these trees have been twice transplanted, and can be removed in the autumn, or spring, with safety.

Persons wishing to purchase *extra sized* fine trees will please call and make a selection. They will be sold at the lowest market price. Also,

ONE HUNDRED THOUSAND BUCKTHORN PLANTS,

one, two, three and four years from the seed.

*BEAUTY PRAIRIE, BALTIMORE BELLE, MOSS, AND OTHER ROSES, SHRUBS
AND HERBACEOUS PLANTS.*

TULIPS, IN 376 VARIETIES.

The Boston and Mount Pleasant Roxbury coaches run to and from the Nurseries every half hour.

SAMUEL WALKER,
Eustis-street, Roxbury, Mass.

September 1, 1848—(s.o.n. & m'ch & ap.)

HIGHLAND NURSERIES, NEWBURGH, NEW-YORK. LATE A. J. DOWNING & CO.

THE undersigned beg leave to inform their patrons, and the public in general, that their stock of

FRUIT AND ORNAMENTAL TREES, SHRUBS, &c. &c.,

for autumn planting, is unusually large and thrifty, especially *Pears, Plums and Apples*. Of most of the standard varieties of the latter, there are several thousand trees, three and four years old, of large size, suitable for orchard planting, together with a general assortment of Cherry, Peach, Nectarine and Apricot Trees; also Grape Vines, small fruits, &c. &c.

Pear on Quince Stocks.

Portugal Quince trees, standard high 6 feet,.....	\$1 00
do do quenouille, do	1 00
Angers, (<i>true</i> .) do do	1 00
Smaller trees of the above,	50

Hedge Plants.

Buckthorn, two year old, per 1000,	\$8 00
Osage Orange, do do	12 00

The ORNAMENTAL DEPARTMENT is full and complete. For particulars see Catalogue; a new edition of which is just issued for 1848 and '49, and will be sent to all post paid applicants.

Orders respectfully solicited, and will receive prompt attention, which will be carefully packed and shipped to any part of the Union or Europe.

N. B. Catalogues to be had gratis of the Agent in N. Y., GEO. G. SHEPHERD, 143 Maiden-Lane, and at the office of "THE CULTIVATOR," Albany.

A. SAUL & CO.

Highland Nurseries, September 16, 1848—oc.2t.

TO NURSERYMEN, GARDENERS, AND HORTICULTURISTS GENERALLY.

THE subscriber, for many years agent of the Highland Nurseries of Newburgh, having withdrawn from other engagements, has now devoted himself to the commission business, and intends giving special attention to the Nurserymen, Gardeners, and Horticulturists of the country generally.

His arrangements for a regular correspondence with agents in Europe, will be immediately completed, and prompt attention always given to the receiving goods from, and the forwarding goods to Europe.

He will, also, receive for sale consignments of seeds, or other goods they may have to dispose of, and attend to the transaction of any business here or in Europe, with which they may entrust him. There being no such agency in the city, he hopes, by a faithful attention to their interests, to render his services valuable and respectfully solicits their patronage.

Reference—A. J. DOWNING, Esq., Newburgh,

A. SAUL & Co., Newburgh,

H. REID, Murray Hill, N. Y., and Elizabethtown, N. J.

GEO. G. SHEPPARD,
143 Maiden-Lane, New-York.

N. B. Orders for Russia Mats, for Budding or Packing, immediately supplied.
New-York, September 21, 1848—o.2t.

PLUM STOCKS.

THE subscriber offers for sale

100,000 GOOD STRONG SEEDLING PLUM STOCKS.

Messrs. King & Ripley, and other nurserymen, who have used these Plum Stocks, prefer them to the imported or any other sort ever tried by them. None less than 15 inches high will be put in.

Price, \$10 per 1,000—\$90 for 10,000, delivered in New-York.

Also, a large collection of

FRUIT, ORNAMENTAL TREES, GRAPE VINES, &c.

Apply to SAMUEL J. GUSTIN.

Newark, N. J. Oct. 1, 1848—2t.

FRUIT TREES.

THE subscribers are now ready to receive orders for superior Trees, viz :—

APPLES, PLUMS, PEARS, CHERRIES, PEACHES, &c. &c.,

from their new nursery. Trees all warranted in a healthy condition, and true to their sorts. Orders are entered on the order book, to be forwarded as soon as practicable in the fall. Orders respectfully solicited, and will receive prompt attention.

Also, a fine assortment, choice varieties, of the Pear on Quince Stock, (or Dwarf Pear Trees.)
WILSON, THORBURN & TELLER.

October 1, 1848—1t.

PRINCE'S

LINNÆAN BOTANIC GARDENS AND NURSERIES, FLUSHING, N. Y.

WM. R. PRINCE & CO.,

SUCCESSORS OF WM. PRINCE, AND SOLE PROPRIETORS OF HIS GREAT
COLLECTION,

OFFER the largest and choicest assortment of Fruit and Ornamental Trees and Plants to be found in America, and will transmit DESCRIPTIVE CATALOGUES to all post-paid applicants desirous to purchase. The choicest varieties of Fruits, which are scarce elsewhere, are here extensively cultivated, and applicants will not be disappointed. Every desirable fruit enumerated by Downing, Manning, Kenrick Hovey, and in the Catalogues of Europe, can be supplied. Of the finest varieties of Pears 50,000 trees can be supplied, of which 15,000 are of bearing age on both the Pear and the Quince. Purchasers are solicited to visit the establishment and judge for themselves, but the same attention will be paid to the selection for all distant correspondents. The prices are as low and mostly lower than trees of equal quality can be elsewhere obtained. And above

FIVE HUNDRED VARIETIES OF FRUIT TREES,

And a much larger number of

ORNAMENTAL TREES

Can be supplied, that cannot be obtained elsewhere in the Union, except in a few casual instances. Every premium for Roses and Strawberries was awarded to us by the Long Island Horticultural Society.

A WHOLESALE CATALOGUE WILL BE SENT TO ALL VENDERS.

The transportation expense to the West is now moderate, and the Agent's Receipt will be sent to each purchaser, which will prevent the possibility of loss. Cash or a reference can be sent with the order, by those who are strangers to us.

N. B.—We caution the public against a spurious use of our name and title by a man named Winter, who never purchased any trees from the late William Prince, and which is calculated to deceive many.

OCTOBER 1, —It.

THE NURSERY OF J. J. THOMAS,

Macedon, Wayne county, N. Y.,

CONTAINS A SELECTION OF

APPLES, PEACHES, CHERRIES, PEARS, APRICOTS, &c.,

Propagated wholly from trees proved in bearing,

and embracing the most approved standard sorts, together with such new varieties as a thorough trial has entitled to rank among those decidedly excellent. Nearly all, except a part of the newer varieties, are of large size and fine growth; the Apples and Cherries varying from 7 to 9 feet high, in most cases.

The prices are low.

Trees well packed in bundles, with mudded roots in wet moss, for canal and railroad conveyance.

PLUM SEEDLINGS, one year old, of a variety selected for its adaptation to light as well as heavy soil, at \$7 per 100.

All communications, post paid, to be addressed to the Proprietor, Macedon, Wayne county, N. Y.

October 1, 1848—21.



JOURNAL OF RURAL ART AND RURAL TASTE.

VOL. III.

NOVEMBER, 1848.

No. 5.

WE MUST HAVE a little familiar conversation, this month, on the subject of TRANSPLANTING TREES. Our remarks will be intended, of course, for the uninitiated; not for those who have grown wise with experience.

That there is a difficulty in transplanting trees, the multitude of complaints and inquiries which beset us, most abundantly prove. That it is, on the other hand, a very easy and simple process, the uniform success of skilful cultivators, as fully establishes.

The difficulty then, lies, of course, in a want of knowledge, on the part of the unsuccessful practitioner. This kind of knowledge may be stated, broadly, under two heads, viz., ignorance of the *organization* of trees, and ignorance of the necessity of *feeding* them.

The first point is directly the most important, for the very process of transplanting is founded upon it. Since this art virtually consists in removing, by violence, a tree from one spot to another, it is absolutely necessary to know how much violence we may use without defeating the ends in view. A common soldier will, with his sword, cut off a man's limb, in such a manner that he takes his life away with it.

A skilful surgeon will do the same thing, in order to *preserve* life. There are, also, manifestly two ways of transplanting trees.

That the *vital principle* is a wonderful and mysterious power, even in plants, it cannot be denied. But because certain trees, as poplars and willows, have enough of this power to enable pieces of them to grow, when stuck into the ground, like walking sticks, without roots, it does not follow that all other trees will do the same. There are some animals which swallow prussic acid with impunity; but it is a dangerous experiment for all other animals. What we mean to suggest, therefore, is, that he who would be a successful transplanter, must have an almost religious respect for the roots of trees. He must look upon them as the collectors of revenue, the wardens of the ports, the great viaducts of all solids and fluids that enter into the system of growth and verdure, which constitutes the tree proper. Oh, if one could only teach hewers of "tap-roots" and drawers of "laterals," the value of the whole system of roots,—everything, in short, that looks like, and is a *radicle*,—then would nine-tenths of the difficulty of transplanting be quite overcome, and the branches might be left pretty much to themselves!

Now a tree, to be perfectly transplanted, ought to be taken up with its whole system of roots *entire*. Thus removed and carefully replanted, at the proper dormant season, it need not suffer a loss of the smallest bough, and it would scarcely feel its removal. Such things are done every year, with this result, by really clever and experienced gardeners. We have seen apple trees, large enough to bear a couple of bushels of fruit, which were removed a dozen miles, in the autumn, and made a luxuriant growth, and bore a fine crop the next season. But the workman who handled them had gone to the root of the business he undertook.

The fact, however, cannot be denied, that in common practice there are very few such perfect workmen. Trees (especially in the nurseries,) are often taken up in haste, at a loss of a third, or even sometimes half of their roots, and when received by the transplanter, there is nothing to be done but *to make the best of it*.

In order to do this, we must look a little in advance, in order to understand the philosophy of growth. In a few words, then, it may be assumed that in a healthy tree, there is an exact "balance of power" between the roots and the branches. The first may be said to represent the stomach, and the second the lungs and perspiratory system. The first collects food for the tree; the other elaborates and prepares this food. You can, therefore, no more make a violent attack upon the roots, without the leaves and branches suffering harm by it, than you can greatly injure the stomach of an animal without disturbing the vital action of all the rest of its system.

In trees and plants, perhaps, this proportional dependance is still greater. For instance, the leaves, and even the bark of a tree, continually act as the perspiratory system of that tree. Every clear day, in a

good sized tree, they give off *many pounds* weight of fluid matter,—being the more watery portion of the element absorbed by the roots. Now it is plain, that if you destroy, in transplanting, one-third of the roots of a tree, you have, as soon as the leaves expand, a third more lungs than you keep in action. The perspiration is vastly beyond what the roots can make good; and unless the subject is one of unusual vitality, or the weather is such as to keep down perspiration by constant dampness, the leaves must flag, and the tree partly or wholly perish.

The remedy, in cases where you must plant a tree whose roots have been mutilated, is (after carefully paring off the ends of the wounded roots, to enable them to heal more speedily,) to restore the "balance of power" by bringing down the perspiratory system—in other words, the branches, to a corresponding state; that is to say, in theory, if your tree has lost a fourth of its roots, take off an equal amount of its branches.

This is the correct *theory*. The *practice*, however, differs with the *climate* where the transplanting takes place. This is evident, if we remember that the perspiration is governed by the amount of sunshine and dry air. The more of these, the greater the demand made for moisture, on the roots. Hence, the reason why delicate cuttings strike root readily under a bell glass, and why transplanting is as easy as sleeping in rainy weather. In England, therefore, it is much easier to transplant large trees than on the continent, or in this country; so easy, that Sir HENRY STEWART made parks of fifty feet trees with his transplanting machine, almost as easily and as quickly as Capt. BRAGG makes a park of artillery. But he who tries this sort of fancy work in the bright sunshine of the

United States, will find that it is like undertaking to besiege Gibraltar with cross-bows. The trees start into leaf, and all promises well; but, unless under very favorable circumstances, the leaves beggar the roots, by their demands for more sap, before August is half over.

We mean to be understood, therefore, that we think it safest in practice, in this part of the world, when you are about to plant a tree deprived of part of its roots, to reduce the branches a little *below* this same proportion. To reduce them to precisely an equal proportion, would preserve the balance, if the ground about the roots could be kept uniformly moist. But, with the chances of its becoming partially dry at times, you must guard against the leaves flagging, by diminishing their number at the first start. As every leaf and branch, made after *growth* fairly commences, will be accompanied simultaneously by new roots, the same will then be provided for as a matter of course.

The neatest way of reducing the top of a tree, in order not to destroy its natural symmetry,* is to *shorten-back* the young growth of the previous season. We know a most successful planter who always, under all circumstances, shortens-back the previous year's wood, on transplanting, to *one bud*; that is, he cuts off the whole summer's growth down to a good plump bud, just above the previous year's wood. But this is not always necessary. A few inches (where the growth has been a foot or more,) will usually be all that is necessary. It is only necessary to watch the growth of a transplanted tree, treated in this way, with one of the same kind unpruned; to compare the clean, vigorous new shoots, that will be made the first season by the former,

with the slender and feeble ones of the latter, to be perfectly convinced of the value of the practice of shortening-in transplanted trees.

The necessity of a proper supply of food for trees, is a point that we should not have to insist upon, if starving trees had the power of crying out, like starving pigs. Unluckily, they have not; and, therefore, inhuman and ignorant cultivators will feed their cattle, and let their orchards starve to death. Now it is perfectly demonstrable, to a man who has the use of his eyes, that a tree can be *fatted* to repletion, that it may be made to grow thriftily and well, or that it may be absolutely starved to death, as certainly as a Berkshire. It is *not* enough, (unless a man has rich bottom lands,) to *plant* a tree in order to have a satisfactory growth, and a speedy gratification in its fruit and foliage. You must provide a supply of food for it at the outset, and renew it as often as necessary during its lifetime. He who does this, will have five times the profit and ten times the satisfaction of the careless and sluggish man, who grudges the labor and expense of a little extra feeding for the roots. The cheapest and best food for fruit trees, with most farmers, is a mixture of swamp muck and stable manure, which has laid for some two or three months together. The best manure, perhaps, is the same muck, or black peat, reduced to an active state with wood ashes. (See vol. ii, p. 384.) A wheelbarrow load of this compost, mixed with the soil, for each small transplanted tree, will give it a supply of food that will produce a growth of leaf and young wood that will do one's heart good to look upon.

Any *well decomposed* animal manure may be freely used in planting trees; always thoroughly incorporating it with the *whole*

* Cutting off large branches at random, often quite spoils the natural habit of a tree. *Shortening-back*, all over the head, does not affect it in the least.

of the soil that has been stirred, and not throwing it directly about the roots.

There are, however, some improvident men who will plant trees without having any food at hand, except manure in a crude state. "What shall we do," they ask, "when we have only fresh stable manure?" Perhaps we ought to answer—"wait till you have something better." But since they will do something at once, or not at all, we must give them a reply; and this is, make your hole twice as large and twice as deep as you would if you had suitable compost. Then bury part of the fresh manure *below* the depth where the roots will at first be, mixing it with the soil, treading the whole down well to prevent settling, and covering the whole with three inches of earth, upon which to plant the tree. Mix the rest with the soil, and put it at the *sides* of the hole, keeping the manure both at the sides and bottom, far enough away, that the roots of the tree shall not reach it for two months. Then plant the tree in some of the best good soil you can procure.

One of the safest and best general fertilizers that can be used in transplanting at all times, and in all soils, is *leached* wood ashes. A couple of shovel-fuls of this may be used (intermixed with soil,) about the roots of every tree, while replanting it, with

great advantage. Lime and potash, the two largest inorganic constituents of all trees, are most abundantly supplied by wood ashes; and hence its utility in all our soils.

We have, previously, so largely insisted on the importance of *trenching* and *deepening the soil*, in all cases where trees are to be planted, that we trust our readers know that that is our *platform*. If any man wishes to know how to improve the growth of any tree in the climate of the United States, the first word that we have to say to him, is to "*trench* your soil." If your soil is exhausted, if your soil is thin and poor, if it is dry, and you suffer from drouth, the remedy is the same; deepen it. If you have much to do, and economy must be considered, use the subsoil plough; if a few trees only are to be planted in the lawn or garden, use the spade. Always remember that the roots of trees will rarely go deeper than the "natural soil," (say from 10 to 20 inches on the average,) and that by trenching two or three feet deep you make a double soil, and therefore enlarge your "area of freedom" for the roots, and give them twice as much to feed upon. If you are a beginner, and are skeptical, make a trial of a few square yards, plant a tree in it, and then judge for yourself.

CULTURE OF FOREIGN GRAPES IN POTS.

BY GEO. KIDD, BLITHEWOOD, DUTCHESS CO., N. Y.

As you solicit communications from horticulturists, I avail myself of a few moments of leisure, to offer some remarks on the culture of grapes in pots.

The article from the Gardeners' Chronicle, reprinted in the September number of the Horticulturist, though able, is unsuited

in its detail to this climate. Your humble servant, having been educated in the same school with the writer of the article in the Gardeners' Chronicle, in giving his own practice, will not be found to differ in principle, but merely to *Americanize* the practice. I will first point out one practical

difficulty in the original article, and then, for sake of brevity, proceed without further notice of it. Every experienced gardener is aware of the extreme difficulty of maintaining a bottom heat of 90° in February, with the common materials in use; and few have not had repeated bitter experiences of the treachery of those fermenting materials, by the blasting of all his hopes, when his expectations have been high. It would not do, then, to risk the peculiarly delicate foliage of the young vine to the tender mercies of such agents.

We will commence, then, by placing a single eye or bud in a quart pot, an inch below the surface, in a compost of two-thirds half decayed leaves and one-third turfy loam; this can be done any time after the permanent vines are pruned in the fall, being careful to select good plump eyes from perfectly ripened wood, when they may be placed under the green-house stage, there to remain until about the first of March, when a hot-bed should be ready for their reception.

The manure for the hot-bed should be well prepared by frequent turnings, and a plentiful admixture of oak leaves, so as to ensure a *steady* and lasting heat; three feet in depth of these materials would be sufficient, though it would be well to apply a lining at once to prevent the winds from penetrating and thereby causing the heat to fluctuate; after the bed has settled and the violent heat subsided, it may be earthed over with leaf mould or old tan, in which to plunge the pots to the rim, taking care to keep them about a foot from the glass. The beds must be carefully covered with double mats every night, so long as there is any danger from frost. They will require very little water; indeed, you must perseveringly guard against too much damp, by freely ventilating at the back of the

frame when the weather will permit. As the young shoots advance, let the frame be raised, but always keeping them within a foot of the glass; and as the season advances, and the sun's rays become powerful, a slight coat of whitewash on the outside of the glass may prevent accidents, and save much time in attendance upon them. As their roots fill the pots, they will require more water, and shifting into two quart pots, and some of the stronger ones into still larger. The compost for this shifting should be two-thirds turfy loam and one-third leaf mould. Where there is a vinery they may now be removed into it, and plunged between the permanent vines, and carefully trained to the wires under the centre of the sash,—the laterals being stopped as they appear. They will now require a more liberal supply of water, and liquid manure may be given them twice or three times per week. Drainings from the manure heap, is the safest to apply. Where tanks are placed to collect the urine of animals, it should be used before becoming putrid; lime should be thrown into it, and it should be diluted with rain water. Always be careful to have the water of the same temperature for your plants as the atmosphere they are growing in.

Where there is no vinery, the plants may be placed on the green-house stage; as, by this time, there will be plenty of room for them; but the temperature of the house must be kept up to not less than 65° by night.

By the last of August, most of the vines will again require shifting. They should now be shifted into their fruiting pots,—gallon sizes,—and require a more generous compost, prepared as follows:—*two-thirds turfy loam, and one-third well decomposed night-soil*; or, if you have not this material in a fit state, the deficiency may be sup-

plied with animal matter and good leaf mould. The former may consist of refuse matter from a glue factory, or slaughter-house; or, better still, the refuse wool from a woolen factory; this, being saturated with animal oil, is a powerful and lasting manure, and when half decomposed and formed into compost as above, I have found it very suitable for vines in pots, with the addition of some ground bones for drainage. The plants are very well reconciled to their confined state.

I prefer allowing the plants, the first season, to make all the length of cane they are able, without stopping them; believing that by this mode the young vines are able to store up a larger amount of organizable matter; and in this fine climate, there is no difficulty in ripening a sufficiency of wood. For the remainder of the season they will require but little water; but do not let them flag at any time for want of it.

In February, or before, let them be pruned. On those that are strong enough for fruiting, from three to four feet of wood may be left, according to their strength and kinds; the weaker ones should be cut down to three eyes. All should now be placed perfectly at rest in their winter quarters; if put under the green-house stage, the pots had better be placed on their sides in order to guard against too much moisture.

In March they may be again plunged in a hot-bed, prepared for them, and the first stage of forcing carried on, until the green-house plants are withdrawn from the green-house, when the young vines may again occupy the stage; there to perfect their fruit, or gain sufficient strength to fruit the succeeding season.

In summer, pruning the vines rather than disbud, I would suffer all the side shoots to grow until you have selected the clusters you intend to keep; let these be stopped

at one joint beyond the fruit, and all the rest cut back to four eyes. All laterals should be stopped as they appear; also the leading shoot, after it has made about three feet of new wood. The shoots that are cut back to four eyes, will form fine plump buds at their base for fruiting next season; and by every year cutting clean back the shoots that have fruited, the plant will last several years, and be free from unsightly spurs.

I would by no means recommend the growing in pots as profitable; but to the amateur, or curious cultivator, it affords a means of growing many varieties that would not be found profitable to occupy a permanent place in the vinery. The object we have in view for growing them in pots here at Blithewood, is to occupy the stage of the centre house, where, as we treat this house as an early vinery, grapes in pots are more in character than flowering plants would be.

Mr. DONALDSON, the proprietor of Blithewood, has been among the earliest and most successful cultivators of the grape under glass on the Hudson river. The border of his first grape-house, (which I understand was signally successful,) consisted entirely of leaf mould, or decayed vegetable matter. This house, however, has given place to a beautiful range; an engraving of which, together with the plan, is given in Vol. I, No. 2, of the Horticulturist. When I commenced the management of these houses, I anticipated difficulty in ripening such grapes as the Muscat of Alexandria, Flame-coloured Tokay, Black Morocco, &c., being 100 miles north of the city of New-York, but strange to say they have all ripened two weeks earlier than most of the houses on the Hudson. I can only account for this from the houses being protected at the north by a thick belt of woods, also from their being *placed in a*

hollow or valley. Another good effect of this latter position, is that the glare of the glass roof is kept out of sight.

If you should deem this article worthy of notice, I will, from time to time, send you others of a strictly practical nature. I am convinced that no branch of horticulture can be made more profitable than the culture of grapes under glass. I have fully tested this by success in market, with the heavy crops produced by me in the *very cheap vineries* of WM. RANKIN, Esq., of Newark, N. J. Respectfully yours,
GEO. KIDD,
Gardener at Blithewood, near Red Hook, N. Y.
.....

[Such communications as the foregoing are always welcome to our pages. We have had the pleasure of examining, several times, the vinery at Blithewood, under Mr. KIDD's care, where we found abundant proof of his practical ability. ED.]

POMOLOGICAL REFORM AND SELECTED FRUITS.

BY DR. WM. W. VALK, FLUSHING, L. I.

WE wrote a short article for the October number of the *Horticulturist*, upon the subject of a reform in pomology, suggested by the perusal of an interesting paper by the editor,—the September leader, on Pomological Reform. Every man, whose prejudices are not above his reason, must at once admit that a reformation is not only needed, but *demand*ed. Circumstances indicate this too plainly for the possibility of any misunderstanding, either as to its utility or necessity.

If any evidence is required in proof of the fact, as we state it—if the doubters and the sticklers desire an exposure of their own folly and opposition to improvement in the pomological department of horticulture, they have but to turn to the pages of our nurserymen's catalogues, and therein read over the *long lists* of fruits presented to public notice, and praised "beyond the sober truth," for their individual excellence and worth. Here's proof enough that there is a wrong somewhere; perhaps with the nurseryman, perhaps with the public,—most likely with both. The one wants to *sell*; that's well enough, for it is

his business, and if confined to its legitimate channels, and fairly and honorably conducted, there cannot be a word said against it. The others are purchasers; they want what is good, indeed *the best*, and, in a great majority of instances, rely upon the nurseryman's statements, *in his catalogue*, in making their selections. True, there are some buyers who *know* the real value of most fruit trees, and care nothing for any other testimony than their own experience; but for every one of these, we may safely say there are twenty who do *not* know, and these are the victims of all sorts of cunningly devised plans in the making up of catalogues and advertisements.

Now we don't, by any means, mean to say that *all* nurserymen are cheats and story-tellers, for we are satisfied that there are honest and upright men in "the trade;" men we know, who transact their business with promptitude and exactness, and deal fairly in everything. They value their reputation beyond dollars and cents, are not given to boasting, and prefer the truth, at all times, to practicing the most successful deception. They will not offer for sale

a Chinese Quince, "*with scarlet fruit*," or in any other way deceive by unworthy tricks and bold fabrications. Let us be thankful that there are such; yet, while we do them honor for their integrity, it is not to be denied or concealed that they have to contend against the "arts and sciences" of unprincipled rivals, in establishing for themselves a solid reputation.

If the facts are as we have stated them, (and we seriously believe them to be so,) a reformation is imperatively demanded. There can be no difference of opinion on the subject, unless it be on the part of those who "like nothing better than a controversy;" men whose delight is, to

"Abstract, perplex, distract, entangle,
And lay perpetual trains to wrangle;"

those more eager to claim the praise of daring folly, than submissive prudence, and display

———"The rattling tongue
Of saucy and audacious eloquence."

That there are difficulties to be encountered, obstacles overcome, and opposition firmly met, is but an admission of the necessity of making a beginning. We design no such thing as the planning out of the details of the reform we write about; ours is a much more humble purpose, and we hope it may be useful. We would hold out "a friendly light" to the amateur, who is "anxious to plant only a few of the best and most valuable sorts" of fruit trees, and aid him in making his selection. If "beginners are largely at the mercy of catalogues," it is tolerably good evidence of the danger of trusting them.

Is the amateur, *the novice*, desirous of planting out a few of the best *Apples*? Any of the following will not disappoint him; we *know* them to be good:—

Summer Apples.—Astrachan Red, Large

Yellow Bough, Early Harvest, Early Strawberry, Oslin, Williams' Favorite—6.

Autumn Apples.—Autumn Bough, Fall Pippin, Gravenstein, King of Pippins, Porter, President—6.

Winter Apples.—Baldwin, Yellow Bellefleur, Black Apple, Boston Russett, Danvers Winter Sweet, Hubbardston Nonsuch, Jonathan, Minister, Murphy, Newark King, Northern Spy, Peck's Pleasant, Pennock's Red Winter, Monmouth Pippin, Yellow Newtown Pippin, Priestly, Rhode Island Greening, Green Seek-no-further, Esopus Spitzenburgh, Swaar, Wine, (Downing's) Lady Apple—22.

For Preserving.—The Siberian Large Red Crab, Transcendant—2.

Here are 36 varieties, only, out of the 300 enumerated in some catalogues—a very moderate number, to be sure; but they are worth growing,—good in quality, bear well, and will give very general satisfaction.

We frankly admit the difficulty of making this selection or any other, because men's tastes differ; and there must be some regard paid to soil and climate. But, notwithstanding all this, we think our choice presents a fair variety, which, if properly cultivated and attended to, will not fail to yield abundantly. There being "no hereditary rights, or rights of occupancy in pomological lists," we have omitted naming "an astonishing number of very worthless apples," and, doubtless, *some* quite as good as our favorites. In serving our "writ of ejectment, however," this could not be avoided, without swelling our list entirely too much.

The amateur has now to be assisted in making choice of 35 of the best *pears*. With an American catalogue before us, naming over 500 varieties, *all* highly eulogized, the task of picking out so small a number as 35, is not the easiest thing in

the world. Some darling pets must be excluded, and some very good sorts overlooked; we can't help it.

Summer Pears.—Out of the 55 named in the catalogue of ——— & Co., we recommend the Bartlett, Bloodgood, Jargonelle, (English,) Madeleine, and Rostiezer—5.

Autumn Pears.—Of the 158, in same catalogue, we select Beurré Bosc, Beurré Capiaumont, Beurré d'Amanlis, Beurré de Beaumont, Beurré Diel, Gansel's Bergamot, Doyenné Gris, Duchesse d'Angoulême, Colmar d'Aremberg, Dunmore, Flemish Beauty, Fondante d'Automne, Frederick de Wurtemberg, Jalousie de Fontenay, Vendée, Louise Bonne de Jersey, Paradise d'Automne, Urbaniste, and Van Mons' Leon le Clerc—18.

Winter Pears.—Beurré d'Aremberg, Beurré Ranze, Columbia, Glout Morceau, Ne Plus Meuris, Passe Colmar, and Winter Nelis—7.

These 30 we know to be excellent; the following 5 we name on the authority of others:—Duvernay, Jersey Gratioli, Les Carnas, Beurré Langelier, and Suzette de Bavay—5.

But there are 255 "additional rare varieties of pears" to be disposed of, and here "lies the rub." What is to be done with them? If it is "difficult to name over 20 or 30 sorts really worthy of cultivation," we don't see but Mr. BEECHER's "writ of ejectment" must be served on them, *volens volens*. The splendid *Doyennés*, the magnificent *Beurrés*, and the beautiful *Bergamots* must be "thrust out;" not all the *sucré* in France can save them. We apprehend, however, that it is not so "difficult" as some persons suppose, to name more than 20 or 30 varieties really worth growing. The experience of Mr. TOMPSON, of the Chiswick Gardens, will bear us out in saying, that 50 sorts can be desig-

nated, and all of them shall be of the first class. But 20 of these shall be so much like the remaining 30 in size, quality, and appearance, as to render it useless to possess and cultivate them, unless for the sake of *variety in name*.

There are gentlemen, especially in the vicinity of Boston, where the pear mania has fixed its "head quarters," whose gardens and orchards are filled, nay, crammed, with pear trees. The good, bad, and indifferent are all there, but "*cui boni?*" If nurseries are estimated "by the size of their catalogues," (and they are so, probably, by most persons,) that being the best which "kicks up the greatest dust" about "specimen grounds," "immense collections," "superior accuracy," &c., how are these amateurs to be considered? Witness the published lists of the fruits exhibited before the Horticultural Society of Massachusetts by private and public cultivators. To what good end is the record of a prodigious string of *names*, if the valuable and worthless are mingled, and nothing indicates the one from the other? The display upon the tables, and subsequently upon paper, is doubtless pleasing; there is a charm about it, to be sure, but it is deceptive; too much of it will not bear a more trustworthy test than that of being *seen and admired*. Like the *Belle de Bruxelles Pear*, it is all *outside*,—"totally worthless for any other purpose than to look at or sell."

It may be said that these large collections are grown for a better purpose than making a display. *It is to test them*, to ascertain which are good, and which not good, that lies at the bottom of it all. Perhaps this is true; and, if true, it is very proper; for every fruit should be subjected to a rigid investigation, ere it is pronounced first quality, and this requires great expe-

rience and judgment. But of what advantage is it to horticulture, if the public are not put in possession of the facts? Let us illustrate this.

At the 19th annual exhibition of the Horticultural Society of Massachusetts, the PRESIDENT of the society had upon the tables 159 varieties of pears, Mr. MANNING 255 varieties, Messrs. HOVEY 70, S. WALKER 60, J. LOVETT 80, O. JOHNSON 60, Messrs. WINSHIP 40, and several others in smaller numbers. Altogether, 948 dishes of pears were before the eye. The visitors, no doubt, were much gratified, and the premiums awarded, we presume, in a satisfactory manner. Now we cannot help asking, *for what* were these premiums given? The Report says—"for the best, 2d best, and 3d best"—what? "best exhibition;" that's all. The judges sat in "secret session," in their committee room; Mr. R. MANNING, the largest exhibitor, being one of them. To the PRESIDENT they gave the "Lyman plate," to Mr. WALKER the Lowell medal, to Mr. LOVETT \$5, to Mr. POND \$5, and to Mr. VANDINE \$3. Mr. MANNING got nothing for his 255 varieties, nor any of the others. As a looker on, a novice, we are desirous of planting 50 of *the best pears*; a *very large* number, truly, when we are told "by authority" that it is "difficult to name over 20 or 30 really worthy cultivation." But how shall we select our 50 out of the 159 premium pears, shown by the President? The judges have given us no information upon the subject; "they remain silent," and allow us to be "captivated by exterior charms." They hang no "friendly light over the shoals and breakers, which they know by heart," but "quietly allow" us to be stranded on them, by leaving on our minds the impression that the whole 159 varieties of pears *are* worth growing, and that we cannot make a mistake in selecting

any of them. But such is *not* the fact; for having made our choice of 50 of the best, there remains 109 "second rate," "poor," or "worthless." Under such management, the purposes of all exhibitions are perverted, and "numberless varieties of fruit" are allowed a place upon the exhibition tables, which are *known* to be unworthy of any such honor.

For the amateur's benefit, we now proceed to name one dozen *cherries*, selecting them from the 120, and over, enumerated in some catalogues: American Amber, Black Eagle, Black Heart, Black Tartarian, Coe's Transparent, Downer's Late, Elton, Graffion, Knight's Early Black, White Bigarreau, Archduke, and May Duke.

From the 170 *plums*, as per catalogue, we recommend a dozen: these are Coe's Golden Drop, Columbia, Corse's Nota Bena, Duane's Purple, Imperial Gage, (Prince's,) Yellow Gage, Huling's Superb, Jefferson, Lawrence's Favorite, Magnum Bonum, (white) Orleans, (Smith's,) and Washington.

Peaches.—With a list of "most estimable" peaches, "selected from the largest specimen orchard that has ever existed," and embracing more than 200 named varieties, it might appear difficult for us, or anybody else, to select a *small* number, particularly too where a choice may now be made of some or all of the "splendid new varieties from Persia, Turkey, Greece, Italy, and Buenos Ayres, at \$1 each." Whether difficult or not, however, we shall *try*, and most respectfully beg leave to let the *new* arrivals remain upon page 21 of the Catalogue. We name, then, the following 18: Late Admirable, Yellow Alberge, Bergen's Yellow, Blood Cling, (*for preserving only*,) Green Catharine, Dwarf Orleans, (curious—only three feet high,) Early York, George the Fourth, Grosse Mignone, Lemon

Cling, (preserves,) Early Melocoton, Late Melocoton, Red Cheek Melocoton, Old Newington, Oldmixon Cling, Oldmixon Free, President, and Van Zandt's Superb. If the amateur has no curiosity, and cares but little for preserves, the Blood and Lemon Clings, with the Dwarf Orleans, may be left out.

Nectarines.—As these are so precarious from the attacks of the *curculio*, we select but 2, the Elruge and Violet Hatve.

Apricots.—Of these, 5 will be enough: Dubois' Early Golden, Hemskirke, Large Early, Moorpark, and Peach.

Grapes.—For open air culture, *north of* Baltimore, the Isabella and Catawba. For culture under glass, Black Hamburgh, Black Prince, Chasselas Musqué, Grizzly Frontignan, White and Black Frontignan, Royal Muscadine, Muscat of Alexandria, West's St. Peters, Black Lombardy, and Prince Albert. *South of* the point indicated, nearly every variety of the grape will succeed in the open air, provided they are cultivated in a proper manner, regard being had to drainage, soil, aspect, and a judicious use of the knife.

Quinces.—The Large Orange, and the Pear-shaped. We have not yet seen the "*Chinese Scarlet flowering, with scarlet fruit*," and don't know of any one who has.

Raspberries.—American Red, the True Red and Yellow Antwerp, Fastolff, and Pearson's Prolific Red. The first is perfectly hardy; the others, in *this* climate, require a little protection in winter. South of Maryland, they will stand the winters very well.

Strawberries.—"Five of the very best varieties, for general cultivation," are Large Early Scarlet, Crimson Cone, Burr's New Pine, Hovey's Seedling, and Black Prince. To these, a sixth will, in all probability, be added—the American Scarlet, an *exceed-*

ingly promising variety, raised by Mr. HUNTSMAN of this village. The Aberdeen Bee-Hive, Burr's Mammoth, Burr's Seedling, and Taylor's Seedling, are now on trial in our garden. The results will be, in due time, communicated.

Currants.—Black Naples, Red and White Dutch, and the Cherry Currant. The last is new and *very* large.

Of gooseberries, figs, and the miscellaneous fruits, we feel no disposition to make a selection, because we find it rather a bother to do so for ourselves, and care too little for all or any of them to seek further experience.

The object we had in view when we sat down to write this article, has now been accomplished. We presume not to say that our experience is as extensive as that of many of the gentlemen who are contributors to the Horticulturist; for it is only within the past 10 years that we have given the subject of horticulture much attention, yet during that time, we have not been idle. The knowledge we would impart to the amateur is the result of our own *well tried* investigations. Others may differ from us; that is to be expected; for men's tastes differ as much as their faces; and not unfrequently they will differ for the mere love of the thing. It is, unfortunately for the advancement of a most interesting science, too much the prevailing passion to grow immense *quantities* of fruit, instead of *select* assortments. Nothing that we know of seems to act as a check upon it; on the contrary, it is encouraged in various ways, by private growers, to a considerable extent, and by nurserymen to excess.

In all the attempts to raise new varieties too, from the seed, there is a manifest carelessness, as surely detrimental as it is absurd. It is admitted to be true, that not a seedling fruit is worth saving and naming

unless it is *better* in most respects, if not all, than those already cultivated. Yet, it not unfrequently happens that one man, in the course of two or three seasons, will offer for sale from 15 to 20 "magnificent and highly flavored varieties" of strawberries, for instance, name them *himself*, and give them a character for excellence, productiveness, and general superiority, which should *only be bestowed by competent authority*, and not then, unless the candidates for favor are worthy of the honor. *Real* improvements are not the work of a day, a month, or a year, in the raising of seedlings of merit. The thing is not as easily done as some hair-brained cultivators would have us believe; it takes much time, unyielding patience, and perseverance, and a resolute determination to destroy all that are *below the standard of the best* then in general cultivation. Were one million strawberry

plants raised by the mere promiscuous planting of the seed of one or more varieties, the chances are 100 to 1 that *not five* of the entire lot would produce fruit in any wise superior to valued kinds, already known. Yet we are asked to swallow the absurdity of crediting individual statements, which carry upon their face, to every calm and reasoning thinker, the stamp of the most ridiculous folly. The philosopher's stone has yet to be discovered, and so has that process which enables one man to raise with facility *numerous* "splendid" seedlings, when the admission is universal that *one* seedling fruit of sterling worth is a phenomena, amidst the chaos of trash and trumpery forced upon public attention, by the noisy efforts of horticultural charlatans.

WM. W. VALK, M. D.

Flushing, L. I., Oct. 1, 1843.

REMARKS ON EVERGREEN TREES.

BY E. W. LEAVENWORTH, ESQ., SYRACUSE, N. Y.

DEAR SIR—Few of the numerous valuable articles, which have been continually appearing in your periodical, have interested me more deeply than those which relate to the propagation and cultivation of evergreens. These articles are gradually diffusing, throughout our country, information on a subject not generally well understood, but which is rapidly becoming of paramount interest with all who have souls to admire the charms of nature. I trust that you will be abundantly successful, not only in teaching all your many readers the best modes of cultivating evergreens, and the most desirable varieties to plant, but also

that you will accomplish a far more difficult and desirable result by moulding the public taste into a more heartfelt admiration of these almost indispensable ornaments of all private and public grounds. Evidently, as yet, the general taste of the country scarcely approximates to the true standard in this particular. If a few gentlemen of taste and fortune, sparsely scattered here and there along the sea coast and navigable rivers, or in the neighborhood of large towns, have justly appreciated these friends, who, not only summer, but winter also, with those who admire them, you may look almost in vain else-

where for any such manifestations of taste. Call over, in their order, the long catalogue of public promenades and parks in the various cities of the Union, a few of which are justly celebrated for their beauty, and more still are adorned with splendid trees, venerable for their age, and, perhaps, for the associations which cluster about them, and which of them all will claim any high praise for the beauty of its evergreens, for its waving silken pines, or its stately firs, spruces, or hemlocks? This should not be so. The public taste should as imperiously demand evergreens, in public grounds, as it now does deciduous trees; and private taste should surround every residence with these beauties of the forest.

Permit me, while on this subject, to point out what I am inclined (with some diffidence,) to think an error in the communication of your correspondent, Mr. BACON, in the June number, in relation to the *pruning* of evergreens. I have found the same benefit from pruning *them*, when first transplanted, as in the case of deciduous trees. On general principles it would seem quite indispensable that when a large part of the roots are lost, a corresponding part of the top should also be removed. And I am strongly inclined to believe, that one reason why we are generally less successful in transplanting evergreens than other trees, is, that we usually leave the top entirely untouched, while a larger or smaller portion of the roots—frequently one-half—are cut off in removing. My experience this spring has confirmed my opinion. In April, last, I obtained at Flushing, twelve trees of the Norway Spruce. They were sent to me as they are grown in the nurseries, with the limbs starting from the roots. They were very badly taken up, and still

worse packed. The small amount of moss which was put around the roots was entirely dry, and the roots themselves were badly bruised and broken in taking up or on their passage.

Three of the best of the trees I set out in the shaded grounds about my house, leaving all the limbs untouched.

The remaining nine were planted on the adjacent streets, exposed to the full blaze of the sun, and the reflection from the dry dust; and thinking that the condition of these nine trees required decided remedies, I pruned them severely, leaving only those limbs which were within a few feet of the top.

They were all planted in the most careful manner, were well mulched and watered, but the three first mentioned were watered most frequently, and were protected most of the day by the shade of other trees. Now for the result: all of the trees on the street are alive, and eight of them have thrown out shoots several inches long. The ninth stands in an unfavorable position; but the buds are just now beginning to push, and the tree will live.

Of the three trees planted about my house, one died early, through watered daily. One still retains its leaves, and partially their green colour, but shows no other sign of vitality. The third is in much the same state with the ninth, above mentioned; but if anything, its condition is less favorable. I think the trees could not have been saved without the severe pruning which they received, but should be happy to hear your opinion, and the result of your large experience in the premises. Very truly,

E. W. LEAVENWORTH.

Syracuse, Nov. 1, 1843.

RANDOM NOTES ON HORTICULTURE.

BY SYLVANUS, CINCINNATI.

DEAR SIR—I have been thinking for some time of writing to you, for the purpose of expressing my gratitude for the pleasure afforded me by the perusal of the Horticulturist. In fact, I consider it as a debt of honor due you; and such debts, you know, are sacred, and should be discharged as soon as possible.

The first time it came under my notice, was during a long confinement from illness, pent up in the murky walls of a city, at some distance from my home. The first volume was placed in my hands; and for several days, I may almost say, that I really did not repent that I was not “on a bed of roses.” I will not speak of your own share in the work, for you might think it idle flattery; but nowhere, in any work, have I seen so much knowledge, good sense, and such excellent taste, in everything relating to horticulture, as I find in the pages of your correspondents. And I must repeat, that a debt of gratitude is due you from me, and from all, for thus gathering together and concentrating to a useful issue the long experience and the practical taste of such men as S. G. PERKINS, BEECHER, LONGWORTH, and others, whose names I need not mention more particularly. You may imagine, after this, that I consider your journal too valuable not to be always on my table.

I think I can safely say that in the west, at least, you have given the science you advocate an *impetus*, and that in the right direction, which must not only be gratifying to you, but to themselves who reap the benefit of your exertions. Heretofore, hor-

ticulture and agriculture have been too closely united; and the shadow of the more extensive but necessary science has kept down and blighted the lesser but more elegant one. It has been like planting some delicate and fragrant shrub, that loves the air and the sunshine, under the shadow of a wide spreading and exhausting beech.

We have long wanted a journal wholly devoted to the garden and the orchard; and yours, I think, bids fair fully to supply the want. I much fear, that in this portion of the Union, it will be long before a work of the kind can be adequately supported. Your own, therefore, must be our standard for years to come, if it does not, in these dollar-loving days, and utilitarian age, languish and die for want of the necessary “*manure*.” Be assured that my quota shall be always at hand to apply to the roots.

We have just closed our annual horticultural exhibition. It has been well attended, and the display of fruits has been greater, and the show of flowers more beautiful, than any preceding year. The taste for such things is growing rapidly around Cincinnati. To be sure, as yet, we have not quite got over our disposition to exhibit mammoth productions. We have been too prone to rate our fruits as we rate the excellence of our *hogs*—by the pound. There are too many yet whose souls cannot rise beyond the conception of a mammoth squash, and who go into ecstasies over a corpulent cucumber. But men of taste, refinement, and means, are now coming forward in the cause. The lawyer lays aside his green bag, and for a season, at

least, forgoes the rich pockets of his clients, and delves the pregnant earth in the hope of luscious rewards hereafter. The merchant tarries longer at his villa; and even the grocer and the soap-boiler rid themselves of the cares of the shop, by spending their time upon their snug suburban grass plats; inhaling, for a portion of the year, the balmy breezes of the country. It has become quite a mania, of late, to possess a country residence; and the fruits of their well directed taste are being seen all around us, on the hill-tops and in the valleys.

We have five or six large nurseries in the vicinity; but I learn that, as yet, they have not generally proved profitable, but are becoming more so every day, as the ideas and the tastes of our people expand.

As I intend this epistle to be of the rambling sort, of the vine kind—clambering from subject to subject—I will diverge to something else. I miss, very much, the able pen of Mr. S. G. PERKINS from your pages. I always read his experience with the greatest pleasure. He gave what a novice, like myself, requires,—*facts*, from his own observation, and set them down with precision, as if he really designed to instruct. I consider his one article, in your first volume, upon the transplanting of trees in summer, worth more than fifty fold the price of the book. I have, myself, been quite successful in transplanting trees with the leaf on; but had waited sometimes, to my great inconvenience, until October. I have since tried it (not with fruit trees, however,) in the summer, and with the precautions detailed by him, can now transplant at any season of the year. I may, hereafter, give you an account of some of my experiments.

In your work on “Fruits and Fruit Trees,” I notice that you speak of trees being in a

dormant state. Are they ever dormant? My belief is that they are not. If you will measure a tree around its girth in the fall, after it has shed its leaves, and again in the spring, before the buds start, you will find that it has increased its size. The roots are constantly in action, below the influence of the frost; and when this reaches their extremities the tree *must* die. I intend investigating this point at some leisure moment. How is it with evergreens? Most certainly, they are not in a dormant state at any time. If this were true, a tree, with all its roots exposed through the winter—dug out, in short,—would grow if planted in the spring. Some trees, it is true, are very tenacious of life, and will bear long transportation and great exposure; but these are only exceptions. I cannot think that a tree is idle at any portion of the year. Yet, such seems to be the received opinion of most writers—of all, indeed, who mention the subject.*

While on the subject of trees, why is it that we have no standard work, written by some one who has seen and examined for himself, upon the trees of America? MR. CHAUX, though the best authority, as far as he goes, is incomplete. LOUDON is also incomplete, from the fact that he never was in this country, and could know nothing except what he derived from others. BROWNE, in his preface, makes great pretensions; but is, in fact, the most incomplete and unsatisfactory of all. It is a mere catch-penny affair; most of its merits being derived, evidently, not from observation, but the writings of others. It is a book much like Pindar's razors—to sell. The truth is, we have as yet had no one to travel through our forests extensively, for the purpose of studying and describing trees. Yet where

* Trees are really dormant only when the temperature is below the freezing point, though they are comparatively so as soon as the leaf falls. Ed.

could be found a nobler task? I should rather say, pleasure? I do not know of a field so neglected as this. I will venture to say that one-tenth of the trees of this continent remain undescribed. Even on my own small domain, I have two trees that neither Michaux, Loudon or Browne have noticed. [Will our correspondent describe them? *ED.*] Yet one of them is common enough—large, and well worthy of record. All we as yet know of the wonders of America, is derived from the researches of foreigners. WILSON, AUDUBON, and C. L. BONAPARTE, have monopolized the birds and animals. MICHAUX and LONDON have partially gleaned our trees; and I presume we must wait patiently until some of them turn their steps this way again, before our desire for further knowledge on this subject is gratified. Yet, why is this? We have men capable enough, I am sure; and a work of this kind, splendidly illustrated, would not only be a source of fame, but, I am satisfied, of pecuniary profit.

I was surprised, as well as amused, the

other day, on looking over the works of BACON, to find how many of the theories, now advanced as new in reference to horticulture, were well known and noticed by this great man. The use of salt, as a manure for trees, is an instance. I think it would be well for you to republish this portion of his works. They are not within the reach of many; and I am sure it would give your readers pleasure. There are other topics I should like to touch upon, but have not now the leisure. Should you wish it, you shall hear from me again. In my rambles, during the coming winter, and in the spring, I may pick up something worthy of note. If not, I shall not trouble you.

SYLVANUS.

Cincinnati, Oct. 13, 1848.

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[If "Sylvanus," whose private note (also anonymous,) accompanying the above communication, we have also received, will have the kindness to favor us with his name, we will have the pleasure of replying to some of his inquiries, which are of much interest to us. *ED.*]

THE HORTICULTURAL FESTIVAL AT FANEUIL HALL, BOSTON.

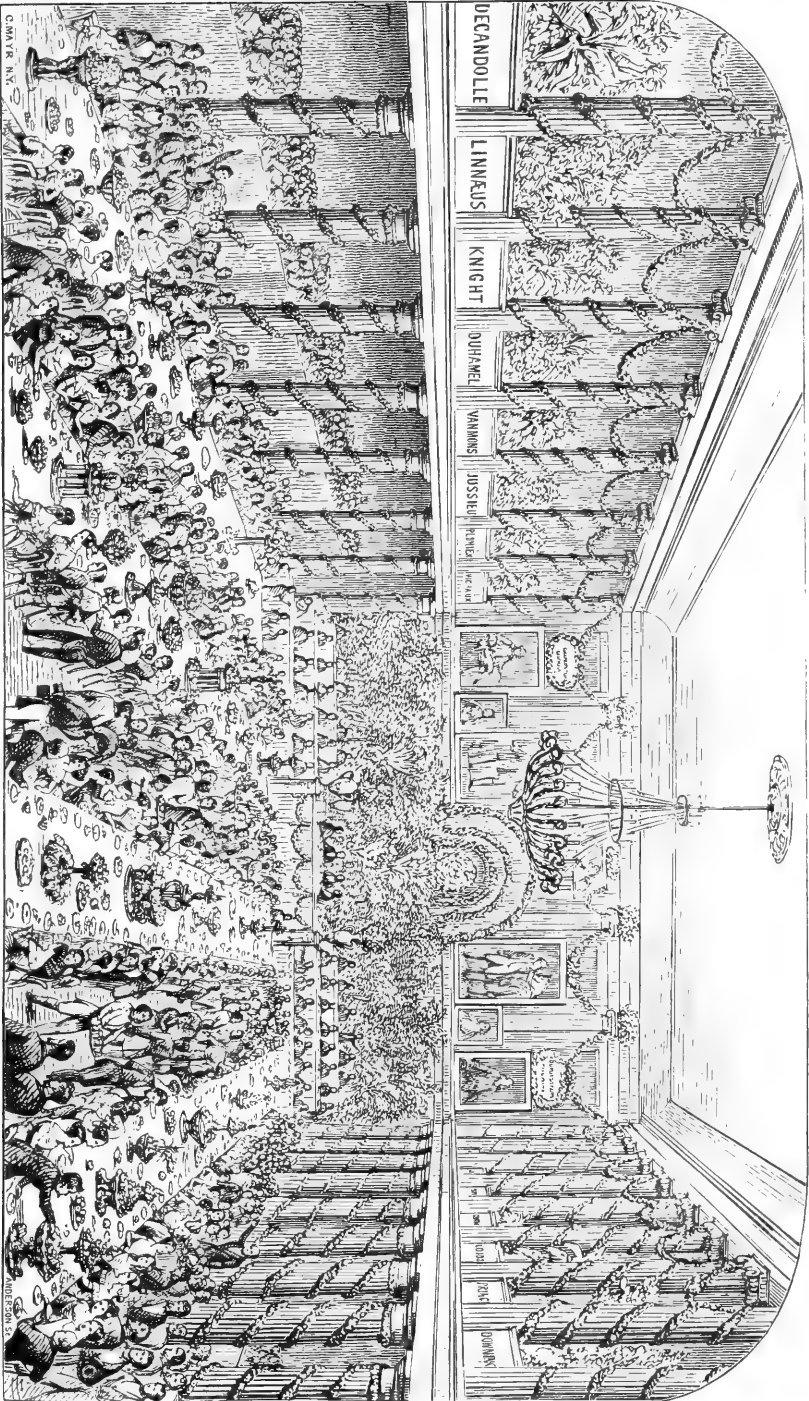
[SEE FRONTISPIECE.]

THE annual exhibition of the Massachusetts Horticultural Society, (of which we gave a brief account last month,) closed with a fête, so unique and so interesting to us, that we wish to preserve some remembrance of it in our pages.

It was what our Boston friends call a HORTICULTURAL FESTIVAL,—a "triennial festival,—a kind of FEAST OF FLORA AND POMONA, at which all her votaries join in celebrating, with one united spirit, the beauti-

ful, the peaceful, and the good influences which flow, like fountains of pure water, from the portals of their flower-woven and fruit-laden temples.

Many things there were, there, which were pleasing and wonderful to us. First of all, the interest—so lively and so general—taken by all classes, ages, and sexes, in horticulture itself. Ladies left their drawing-rooms, the statesman his documents, the divine his study, the merchant



HORTICULTURAL FESTIVAL AT BOSTON, 1843.

Hort : Nov. 1843.



his counting-room, the artisan his workshop, the gardener his plants,—and all *fraternized* in the universal acknowledgment of the interest and value of this culture of the soil. Next, we were surprised at the perfect order and harmony with which all this *materiel* blended into a whole; and, lastly, with the complete and perfect system with which all the details were managed, by those whose duty it was to be the “governors of the feast.” Yes, we said to ourselves, it is quite certain that our New-England friends very well know how to make simple and easy that task, so difficult in most places, of entertaining well and gracefully.

It was a beautiful sight, that feast of fruits and flowers. Old Faneuil Hall, the somewhat grim and antique “cradle of liberty,” smiled benignly with the fair wreaths of flowers that decorated and festooned her columns, and the rich abundance which loaded her tables. Beautiful sentiments, from those of the poets who most loved nature and the garden, were tastefully embroidered in letters of verdure on her walls; and time-honored names of great botanists, naturalists, and horticulturists, saluted us from the transparencies along the galleries, and reminded us of the services they had rendered the good cause, in their lives and labors.

It was five o'clock on the afternoon of the 22d of September, when the company began to assemble in the various reception-rooms of the venerable building, and at a little before six o'clock were conducted by the marshals, to the sound of admirable music, to the great Hall. More than five HUNDRED ladies and gentlemen, without the slightest confusion, were seated at the tables in that large apartment; and at the end of this hall, on a raised *dais*, or platform, were seated the President of the So-

ciety, with his two fair daughters, the vice-presidents, and a numerous circle of invited guests.

From this *dais*, the scene that presented itself to us, under a full blaze of gas light, was singularly gay and brilliant. Rather more than half the company were ladies, in full dress, (each provided with a bouquet, on sitting down to the table,) and the effect of the whole might be compared to that of a rich parterre of flowers. So many lovely faces, so many eyes, bright with animation, so much real pleasure and enjoyment, and so complete an absence of the little perplexities and discomforts of great entertainments, we never remember to have seen. By what sort of magic the stewards and caterers of the feast, contrived that every one should be supplied without noise and confusion, we did not undertake to inquire. But it was done; and we did not care to dispel the illusion by too curiously peering into the machinery of the actual.

In the gallery was stationed a fine band, which filled up all the pauses with delicious music; and, in the centre of the hall, were some accomplished vocalists, who, with a piano accompaniment, gave some odes, composed for the occasion, with excellent effect.

After the supper, after the ices, and the rare fruits—the luscious grapes, pears, peaches, etc., were thoroughly enjoyed, the intellectual repast of the evening commenced.

It is a source of regret to us that we cannot lay before our readers the whole account of this part of the evening's enjoyment—the sentiments, the wit, and the speeches, as we heard them, and as we find them pretty accurately reported in the Boston newspapers. As it would, however, occupy half our monthly space, we are compelled to abridge and condense, giving

only those portions likely to be most interesting to all our readers.

MARSHALL P. WILDER, Esq., President of the Society, presided. With him on the platform, were seated the VICE PRESIDENTS, the CLERGY, HON. R. C. WINTHROP, Speaker of the House of Representatives in Congress, HIS HONOR the MAYOR, JOSIAH QUINCY, JR., Ex-Governor SEWARD, of New-York, Ex-President QUINCY, GEN. DEARBORN, first President of the Society, HIS HONOR Judge PARKER, Royal Professor in Law School, Harvard University, JOHN S. SKINNER, Philadelphia, A. J. DOWNING, New-York, MORTON McMICHAEL, Esq., Chairman of Delegation from Pennsylvania Society, HON. JAMES ARNOLD, President of New-Bedford Society, Dr. THOMPSON, of Delaware Society, and the Delegates of these and other associations, and invited guests.

A blessing having been invoked by Rev. WILLIAM M. ROGERS, the assembly partook of the entertainment provided for them. After about half an hour, the President delivered the following address:

LADIES AND GENTLEMEN—We are assembled to close, by the festivities of this evening, the twentieth anniversary of our institution—to pass the social hour in the friendly interchange of thought and feeling, and thus to mark another epoch in its history,—thus by another link to connect the past with the future, and to transmit its name and deeds to posterity.

From a small beginning, it has risen to a standing and importance among the associations of our land, which it is believed is not only creditable to its founders and members, but to the city of its adoption. While, then, I congratulate the society on the success of its efforts, and would excite you to a renewed energy and zeal, let me also enforce the good old precept, that "grapes grow not of thorns, or figs of thistles," and that without knowledge, scientific knowledge and skill, no great progress or permanent perfection can be attained.

Time was, when without the light of science, the old worn out systems and routine of cultivation, were handed down from sire to son, and from generation to generation. But it is our happy lot to live at a period when a new era has commenced—when the most distinguished and learned men of our age are joining hands to advance the cause of the cultivator,—when chemistry, geology and the mechanic arts have come up to his aid—when his employment has again become dignified, and he, Antea-

like, receives fresh impulses from his mother earth—when in some measure he appreciates the honor and glory that pertained to the calling in the palmy days of Babylon and Rome, and that he is not merely the tenant, but in a proper sense, the lord of the soil.

In view of the innumerable blessings and comforts that arise from the cultivation of the earth, and of its benign and healthful influences on both head and heart, allow me to urge, one and all, to press forward in the good cause—"Forward." Says an old writer, "plant trees, in the name of God, plant trees, and nourish them in every corner of your grounds—the labor is small, the reward great. You shall have plenty, the poor shall have somewhat in time of need, and God shall reward your diligence." Plant trees, then, I repeat, and shrubs and flowers, and make your home another Eden, and around it shall cluster the purest, the most refined and rational enjoyments of life—and be not deterred by the selfish and fatal fear that possibly you may not participate in the harvest.

Permit me to illustrate the folly of such procrastination by an anecdote: Many years since, but not many miles distant from this goodly city, two brothers settled on adjoining farms. The elder said to the younger, "I intend to plant an orchard." "Do so," replied the younger, "but you will never reap any advantage from it during your life." He, however, planted the orchard, and in fifteen years it came into full bearing. The younger brother, excited by this glorious example, also planted another, and in due course of time his trees were bending under their precious burden, which, though oft repeated, was to my mind "better than apples of gold or pictures of silver," and for aught I know, these brothers are now both living to enjoy the good of their labor.

"*Better late than never*," is a good maxim; but in this matter, while life lasts, "*never too late*," is a better one.

An old gentleman of this commonwealth, at the age of three score and ten, commenced the planting of an orchard and the nursery business. His friends and neighbors told him that he was a foolish old man—that his labor was in vain, and "that his strength would be spent for naught." "Very well," said he, "gentlemen, you have a right to your opinions and so have I to mine; but I have ate many good apples from the trees planted by those who have gone before me, and I am resolved to do something for those who shall come after me." He planted the orchard, but did he live to eat of the fruit? Yes, ladies and gentlemen, for a long course of years; and although I cannot give you a genealogical history of his line in scriptural terms, of how many sons and daughters he afterwards added to his household, but I can tell you that he lived not only to the good old age of four score and ten, but almost to five score and ten. Who then shall say it is too late to begin the good work?

One of the best pieces of advice that great writer, Sir Walter Scott, ever gave, was to *plant a tree*. "When you have time," said he, "*plant a tree*; it will be growing when you are sleeping." Yes, ladies and gentlemen, when you are sleeping in

the dust, and generations shall rise up and bless us for the deed, and

"Our children's children shall enjoy the fruit."

And as an inheritance for my family, after that of a good moral and religious education, one of the greatest blessings which I desire to leave for them is a garden well stocked with fruit and flowers, and think you not when they are partaking of these luxuries of God's bounty, they will not shed the tear of gratitude, and remember the hand that planted it?

The time will not permit of extended remarks—one word, however, as to the future prospects of our society. They are of the most cheering character. Within the last five years its list of members has been more than doubled—its new Hall in School-street erected and furnished—its funds considerably augmented, and although its expenditures are on a large and liberal scale, yet it is believed that with its income from Mount Auburn, the day is not distant when its sinking fund will extinguish its debt, and leave means commensurate for all reasonable wants.

For eight years I have annually been elected as its President, and since my first election with but two dissenting votes, a unanimity far beyond my merit, and for which, and the cordial and vigorous support I have received from my official associates, I desire now and ever to cherish the most profound thankfulness and gratitude.

But the time has arrived when in my own judgment it is proper that I should signify my intention to take official leave; and this I now do. If honor has attached to the office, I have surely had it lavished on me; if labor and anxiety, then I humbly claim to have borne my share; but, while I live, or wherever I may go, the name of the Massachusetts Horticultural Society will cause a thrill of joy and pleasure until this heart shall cease to beat; and should I be so fortunate as to retain in your hearts an affectionate remembrance, it will be my highest honor, my richest reward.

Ladies and gentlemen, in conclusion, allow me to propose, as a sentiment—

The Massachusetts Horticultural Society: Its objects have the divine sanction in the first duty assigned to the first man, "to dress and to keep the garden." In the valleys and on the hill sides of New-England, it has produced many an Eden without a serpent.

The President then announced the following sentiments:

New-England: The seed of the "Mayflower" "fell in stony places and had not much earth," but the plant that sprung from it still endures; may it flourish forever,—a noble instance of the triumph of culture over a poor soil.

The City of Boston: Among her varieties of fruits, she has two Quince, (*Quinces*.) which she intends to preserve; and one in "grande," the other in "pure water."

His Honor, JESIAH QUINCY, jr., replied to this sentiment:

Mr. President—I thank you for the compliment that is conveyed in the last sentiment, so far as it refers to me. But before replying I should like to inquire whether, in the opinion of horticulturists, a stone fruit should not take precedence of a mere water plant? for in that case, the gentleman who is to be preserved in granite, ought to reply before

the one who is to live in water. As, however, he has answered for me, on many occasions, it may be but fair that I should respond for him on the present.

If I were inclined to cavil, I might question the existence of these two new varieties of an old fruit; or, at least, doubt whether the best mode of preserving it is to put it in such a pickle as your unluckied for jun has prepared for me.

I am, however, sensible that I owe the honor of the allusion to my official position as the head of a city that is distinguished more than any other in this Union, for the beauty of its environs. And the public unite with me in attributing a great part of that beauty to the labors and influence of this society.

I will give you, as a sentiment—

The Environs of Boston: Famous in History as the Battle-grounds of Freedom; famous, at present, as the abode of taste and refinement, where, as in Eden, woman watches over the flowers, and man finds his most innocent employments in the culture of the soil.

The President stated that they were honored by the presence of Ex-Governor SEWARD, from the state of New-York, and proposed a sentiment:

The Empire State: Favored by nature, but more favored by the energy, intelligence, and enterprise of her citizens.

Ex-Governor Seward responded to this sentiment:

Mr. President—There has been a felicity in my life, which assigned to me the duty of personating New-York at every renewal of her fraternization with Massachusetts. I joined hands with her chief magistrate, in the valley of the Connecticut, when we riveted the iron bands that bind the banks of the Hudson to the shores of Massachusetts Bay. I brought in my hand the cypress wreath which New-York sent to grace the tomb of the statesman of Massachusetts, who sleeps beside his honored sire at Quincy. There may have been a fitness in my part, on these occasions, but I feel that there is none now.

[After some details of his own experience in horticulture, the gentleman continued, as follows:]

Now I take it that the true philosophy of horticulture, is, that there is a pleasure in industry, and a peculiar pleasure in the innocent pursuits of the care and culture of the earth, which is increased just in proportion as taste and refinement preside over our labors instead, of bare utility.

But, Mr. President, what was said in honor of the state of New-York? I should deem myself exceedingly unfortunate if a compliment to that state, which is my native state, my native country, should find me obliged as a matter of compliment, or as a matter of interest, to affect a respect for the state of Massachusetts which was foreign to my heart and foreign to my lips. It is true of the state of New-York, that she is distinguished for extent of territory, for greatness of resources, and for a vast population; but it is also true that she is a state founded, not by one homogeneous people, but that she was a colony, planted by the various nations of Europe; and that it is not her province, it is not in all her past fate, to originate great enterprises, in

government, in literature, or in science; but that she follows, and follows kindly, and faithfully, and vigorously, those states which were planted by the pilgrims of New-England.

And Massachusetts, I confess it here, I confess it on behalf of my own state as well as of Massachusetts, the state of Massachusetts has been the pioneer in all. She was the pioneer in agriculture. We saw the granite soften, and the soil grow green under the feet of the people of Massachusetts, before agriculture became our care. We are a great commercial people; but we learned our commerce from the town of Boston. I think we are not an unpatriotic people; but we followed, and followed with some reluctance, the footsteps of those who were gathered in this venerable Hall. We are not without pretensions to science and literature; but the school-master who educated us all, was sent from New-England.

So it is in this last, and this most gratifying demonstration of the spirit of New-England, this demonstration that Massachusetts has time to turn aside from rugged labors, and may devote a portion of the wealth, and of the time, and of the talent of its citizens, to the cultivation of the garden, and of fruit. Now, Mr. President, this is a subject worthy of Massachusetts. She is not doomed to it by any peculiar sterility of her soil, for the garden gives but few spontaneous fruits to man; while, on the other hand, there is no place on the "footstool" upon which we are situated, to which we cannot bring exotics from every clime. There is no land that "overflows with milk and honey" perpetually. France, now the land of the vine and the olive, the land of fruits and flowers; France, as we all recollect, borrowed her choicest grapes from Cyprus, and the mulberry is an exotic in her borders.

It is, therefore, for Massachusetts to lead in the career of refinement, of horticulture, which she has so nobly commenced. You have already adverted to the influences which so noble a career must exercise upon the welfare of her own people; and it is only to consider that reflected, to know what must be its influences upon the whole American people.

I will advert to but one topic further. When I look around me upon this great and brilliant presence, it seems to revive the spirit of the Middle Ages, when woman was exalted to be almost the first in heaven and first on earth; when woman presided in the distribution of the wreaths which were given in honor of triumphs, not only in the field, but of triumphs in every department of literature and poetry. Such a scene as this,—how does it contrast with the scenes which were presented in this land only one year ago, when the nation was rushing madly into a war for foreign conquest, and women were excluded from our councils, from our sympathies, and almost from our remembrance. It is the true and only way to preserve these institutions, to bring woman up to her proper influence in society. It is only by indulging in such enterprises as may appeal to her for a blessing, that we can expect to preserve a great, a happy, a prosperous, and a peaceful people. I look to Massachusetts to set this example for New-York, and for the whole Union. She is worthy; she is well qualified; and I give you, with my thanks for the kindness with

which these very desultory remarks have been listened to, as my sentiment—

Massachusetts: It is her destiny to lead the march of peaceful civilization on the Western Continent—worthy and well qualified. Let her fulfil it.

After listening to music from the band, the President said:

As the sentiment to which our worthy Mayor responded, alluded to a fruit to "be preserved" in "granite," and consequently as he thinks a "stone fruit," I will give you, for the purpose of accomplishing business as we proceed,—

Josiah Quincy, Senior: The faithful son of a patriot sire.

Mr. Quincy made the following reply:

The first sentiment proposed having been equally applicable to his son as to himself, and his son having responded, he had hoped that this reply would have been deemed sufficient for the family. But from the present renewed call, there was no escaping, although he was wholly unprepared to reciprocate. I came here, Mr. Chairman, to admire, approve, encourage and enjoy, with no intention or desire to analyze the sources of my feelings, much less of making a display of them to others.

Certainly, it cannot be expected of me to make a dissertation on fruits and flowers,—on fruits in their pride and prime, and on flowers in their bloom and beauty—on the results of the energies of nature, in their youthful and most powerful exercise. At my period of life, it is far more natural and appropriate to think of dried fruits and decayed flowers, and of energies failing and waning in their vigor.

I will not, however, refrain from expressing my extreme gratification and delight at what I witnessed yesterday in this hall, and at what I am witnessing to-day,—the evidences of the results of taste, judgment, skill, labor, and of the wise application of capital for the increase, the enlargement and improvement of the bounties of Providence to a degree of perfection which, forty years ago, when I first became connected with an agricultural society, was as little anticipated by my cotemporaries of that day as was the steam engine or the magnetic telegraph.

I rejoice in this state of things, because in the improvement of the soil, by the taste it excites, the powers it calls into exercise, and the moral and social dispositions it inspires, I recognize the surest and broadest foundations of individual happiness and national prosperity. On this topic I cannot refrain from exclaiming in the spirit, and nearly in the translated language of the great Latin poet, "Happy agriculturist! happy horticulturist! too happy, did you but know and realize the greatness of your own felicity."

Mr. Chairman, we hear and are daily told of the prosperity and glory of our country, resulting from conquest and the extension of our territory, now reaching to the Rio Grande and the Pacific. In my judgment, however, our national prosperity and glory is much more intimately dependant on the improvement of the soil we possess, with whose qualities we are familiar, and whose powers we know, than in grasping after conquered territories, of whose capacities we know nothing, and of the

consequences of whose connexion we are necessarily ignorant.

Under the influence of this opinion, permit me to offer the following sentiment:

The most useful and glorious of all conquerors, he, who subdues a fallow soil, and who, by enriching and deepening it, adds to our country a better and more permanent dominion, than he who merely enlarges its surface.

His Honor, the MAYOR, then rose and said—

Mr. PRESIDENT—You have observed that it was well to “settle up” as we go along. Now, sir, you have taken the great liberty to make a pun upon my name; I do not mean to make one upon yours, but merely to offer you a sentiment—

The Massachusetts Horticultural Society: When they get another President, may they have one that is cultivated, for it would puzzle them to find a WILDER.

The President replied that he had been very fairly taken advantage of.

He then proposed—

The Clergy: No longer symbolized by the “Monkhood,” nor subject to monastic terrors; the “Star of Bethlehem” has led to the better way.

Rev. Mr. ROGERS rose to reply—

The kindness of the society, or its officers, has placed me in a position where I am expected to meet the courteous reference had to the clergy in the last toast. It is certainly true, sir, that the clergy are not without their interest in horticulture, or in any good work; and in horticulture chiefly, because it is a good work, looking to the contentment, peace, virtue and happiness of the community. As I conceive the matter, sir, this society, and horticulturists generally, in the purposes of their life, are not so far removed from the clergy that they are to be regarded as even wide apart, or by any means devoid of mutual sympathies. If the life of the clergy be occupied with the words of God, are not you, sir, and your associates, occupied with the works of God? If we are called upon to interpret what He hath said, are not you to develope and bring forth what He hath done in forms of exquisite beauty and loveliness? And it seems to me that you cannot have a happier life, or one looking more to virtue and to peace. There is enough for the development of the mind, or the taxing of its powers; enough for the exercise of all its ingenuity; enough to quicken the curiosity; enough to prompt to effort and to labor; enough to reward you with success; enough to give you a happy day, and a pillow blest with rest. In every form that fruits and flowers and plants can take, they bring out the secreties and the mysteries of God, so that in their loveliness we may look upon them and appreciate them.

This is your work; and it seems to me that there is a lesson to be learned. God spake by the lips of prophets and apostles, and it is our duty to hearken to their voice, and repeat the truths they uttered, to enforce them, and to live by them. Has he said nothing by the trees, and plants, and flowers? Is there no language that they speak? They have a language; they have an utterance; it is the very language of the stars of heaven, that display His glory and show us His handiwork. In developeing these works of God, you are occupied with truths which God hath written upon the flower;

upon its form, its nature, its texture; on the leaf, the circulation of its juices, its uses; you are occupied with truths which develope the greatness of that Almighty creator and preserving us. Is there no lesson to be learned? There is a lesson; a great, a good, a glorious lesson; and what is it? That the elements of happiness for every man are easy and accessible. I admired the toast given by the senior Quincy, that the greatest conqueror is he that brings treasures up out of the soil, rather than he that spreads dominion upon its surface, and it seems to me that we may add to it, and I give it to you as a sentiment—

The Happiest Man: He who is content with a country home, with fruits and flowers perfected by his care, a friend and a good conscience.

The Rev. Mr. LATHROP also made some excellent remarks in reply, and concluded with the following sentiment, alluding to the great public work, now in progress, for supplying Boston with water:—

The Water Commissioners: In providing a supply of “cold water” for others, they have managed to keep out of hot water themselves.

T. B. CURTIS, Esq., replied to the sentiment—

Mr. PRESIDENT—Albeit a Water Commissioner, my time to *spout* has not yet come, [great laughter,] but the fair display of luscious fruits and rosy lips which meet the eye on every side would make any man's *mouth water*. Being called up in my official capacity, I may, Mr. President, say that the fulfilment of the promise of water is near at hand—it is *there*, soon to be *here*! pure and plenty; the cost you will know when the work is done.

Mr. President, our lives though in some respects dissimilar, have had some analogy; you, sir, ploughed the land, I the ocean; you the Rusticus, I the Nauticus; [laughter,] your peaceful labors achieved, may you hereafter repose beneath your own vine and fig tree, leaving your posterity to the grateful enjoyment of the fruits of your honest toil; for myself, wherever my body may repose, I ask but the borrowed epitaph, “Here lies one whose name is writ in water.” [Applause.]

The President announced the presence of Hon.

ROBERT C. WINTHROP, Speaker of the House of Representatives, in Congress, and gave the following toast:

Winthrop, the first Governor of Massachusetts: The good stock which he planted more than two centuries ago, bears fruit in this generation which speaks for itself.

Hon. Mr. WINTHROP replied as follows:

I wish that it *could* speak for itself, Mr. President! Most heartily do I wish that the fruit of that old stock to which you have so kindly alluded, could speak for itself in a manner worthy of this occasion; could find language for the sentiments with which a scene like this has filled all our hearts. It is so long, however, since I was at liberty to speak for myself—I have so long, of late, been a doomed listener to the not always very inspiring speeches of others—that I am almost afraid that my faculty, if I ever had any, has flown. But with whatever words I can find, I desire to offer my congratulations to this society, on

the eminent success of the exhibition which is now brought to a close.

I think you will agree with me, ladies and gentlemen, that a richer display of horticultural products has rarely been witnessed by any of us. I have had a recent opportunity of seeing some of the horticultural exhibitions of other climes. It is hardly more than a twelvemonth since it was my good fortune to be present at more than one of the famous flower shows of London and its vicinity. I know not what hidden beauties might have revealed themselves on these occasions to a more scientific eye—what prodigies of art might have been discovered by those who knew how to look for them—I can only speak of the impressions produced on a superficial observer. I saw there magnificent collections of plants, such as I never saw before, such as I have never seen since. Not a few of them were pointed out to me as original products of our own soil; but I confess that they had been so improved by cultivation, that it must have required a very practiced eye, or an exceedingly patriotic pair of spectacles, to have emboldened any one to claim them as Native American productions. But as to fruits, I saw no exhibition of them anywhere, which for variety, perfection or profusion, could be compared with what we have seen in this hall during the last two or three days.

Certainly, Mr. President, we have never beheld the like in these parts before. A few years ago, we all remember that a little room in Tremont-street was all too wide for your annual shows. But you have gone on so rapidly, adding triumph to triumph—at one moment producing a new apple, at another a few more pears, at a third “a little more grape”—that your own spacious horticultural rooms have now become too small, and old Faneuil Hall itself can hardly stretch its arms wide enough to embrace all the spoils of your victories!

And what shall I say of the festival by which your exhibition is now closed and crowned? Who does not feel it a privilege to be here? Which of us, especially, that have been accustomed to associate at meetings in this place, with subjects of political contention and party strife, can fail to appreciate the harmony and beauty of the scene before him? Never, surely, was there combined a greater variety of delightful circumstances. It would be difficult to decide for which of our senses you have provided the most luxurious repast. Fruit, flowers, music, fair faces and sparkling eyes; wit, eloquence and poetry, have all conspired to lend their peculiar enchantment to the hour.

But it would be doing great injustice to your association to estimate its claims upon the consideration and gratitude of the community by the success of its exhibitions or the brilliancy of its festivals. We owe them a far deeper debt for their influence in disseminating a taste for one of the purest and most refined pleasures of life, and for their exertions in diffusing the knowledge of an art so eminently calculated to elevate the moral character of society.

Horticulture does little to supply the physical wants of a man. The great crops and harvests by which the world is fed, are the products of a sterner treatment of the soil—ever-honored Agriculture,

always the first of arts. But “man does not live by bread alone.” There is food for the soul, the mind, the heart, no less essential to his true subsistence, required not merely by the educated and refined, but by all who have souls, minds or hearts within them. And whence can the toiling millions of our race obtain a more abundant or a more wholesome supply of this food than from the beauties of nature as developed at their own doors, beneath their own feet, and by their own hands, by the exquisite processes of horticulture?

It has been said that an undevout astronomer is mad. But we need not look up to the skies for incentives to devotion. We need not employ telescopes to find evidences of Beneficence. There are

“Stars of the morning, dew drops, which the Sun
Imperls on every leaf and every flower,”

whose lessons are legible to the unassisted eye. The flowers, themselves, with their gorgeous hues and inimitable odors, and which seem, in the economy of nature, to have no other object but to minister to the gratification and delight of man,—who can resist their quiet teachings? What companions are they to those who will only take them into company, and cherish their society, and listen to their charming voices! Who ever parts from them without pain, that has once experienced their disinterested and delightful friendship?

I know not in the whole range of ancient or modern poetry, a strain more touching or more true to nature, than that in which the great English bard has presented Eve, bidding farewell to her flowers:

“Oh flowers,
That never will in other climate grow,
My early visitation, and my last—
At even, which I bred up with tender hand
From the first opening bud, and gave ye names!
Who now shall rear ye to the sun, or rank
Your tribes; and water from the ambrosial fount?”

We know not what were these flowers, that never could in other climate grow. We may know hereafter. But such as we have, there are daughters of Eve here present, I doubt not, with whom, to be deprived of them, would well nigh partake of the bitterness of a Paradise lost.

But let me hasten to relieve you, ladies and gentlemen, from the too sombre, if not too sentimental, train of remark into which I have been betrayed. My reverend friends who have preceded me will have already regarded me as poaching on their premises. Let me add but a single other idea, as the subject of the sentiment which I shall offer in conclusion.

We are accustomed to designate certain arts as the Fine Arts, and I would be the last to disparage their claim to this distinguished title. They furnish to our halls of state and to the mansions of the wealthy, paintings and sculpture that cannot be too highly prized. But horticulture, in its most comprehensive sense, is emphatically the Fine Art of common life. It is eminently a Republican Fine Art. It distributes its productions with equal hand to the rich and the poor. Its implements may be wielded by every arm, and its results appreciated by every eye. It decorates the dwelling of the humblest laborer with undoubted *originals*, by the oldest masters, and places within his daily view fruit pieces such as *Van Huysum* never painted,

and landscapes such as *Poussin* could only copy. Let me say, then,

Horticulture: Its best exhibitions are in the village garden and the cottage window; and its best festivals in the humble homes which it adorns, and in the humble hearts which it refines and elevates.

The following song was sung by Mr. T. H. BARKER, written expressly for the occasion by EPHES SARGENT, Esq.:

The Winter chill has pleasures still,
And Spring is fair to see;
In Summer's heat the groves are sweet,
But Autumn bold for me!
With Vine-Leaves on his honest brow,
And Harvests in his arms,
He comes, with all of Winter's cheer,
And all of Summer's charms!
Chorus—For there's nae luck about the house,
There's nae luck at a',
There's little pleasure in the house,
If Woman is awa'.

The Flowers and Fruits that deck our board,
To her a tribute owe;
From her the Rose steals all its bloom,
From her the Peach its glow;
The Lily in her purity,
May see its own eclipse;
And where did Cherries take their red,
If not from Woman's lips?
Chorus—So there's nae luck, &c.

The purple bloom upon the Grape,
The Violet's modest hue,—
Who does not see they're borrowed, both,
From certain eyes of blue?
And if the Orange Flower is sweet,
And if the Hyacinth fair,
Will any one their lovely tints
With those we sing compare?
Chorus—O there's nae luck, &c.

And there be men of high renown,
Who're welcome here today,
In church and s'tate, who've garlands won,
That will not fade away;
And tillers of the soil have come
To grace our festival;
And Horticulture's peaceful chiefs;—
And they are welcome all!
Chorus—But there's nae luck, &c.

Then while we show our Garden's wealth,
And boast our Plums and Pears,
And while we welcome to our hall,
Our Governors and Mayors,
Let's not forget, of all the charms,
That grace our board, the crown,—
But eat a lusty Pippin each,
To Mother Eve's renown!
Chorus—For there's nae luck about the house,
There's nae luck at a',
There's little pleasure in the house,
If Woman is awa'.

The President then gave—

The Massachusetts Horticultural Society: Her strides in the advancement of Horticultural pursuits have been so rapid, that it must be attributed to her having started on a good *Dearborn*.

Gen. DEARBORN, the first President of the Society then responded:

MR. PRESIDENT, AND LADIES AND GENTLEMEN: None of you, I think have visited this Hall during the last three days, without having become satisfied that Horticulture, however humble in its origin, has become one of the highest and most refined occupations of man. Uncivilized man de-

pended upon the beasts of the forest, and wild fruits, for sustenance, until by the accumulation of population, he was compelled to resort to the culture of the earth for subsistence, and he began with the garden. It was to supply his immediate wants, not furnished by his flocks and herds: it preceded agriculture. We have it in the Scriptures, that bread is not alluded to in the first ages. The patriarchs of old were shepherds; their lives were romantic; until at last, means of support were required beyond those which had been furnished in former times, and the garden was resorted to. Bread was not named until the time of Abraham; it was first offered to the angels who appeared to him as he sat in the door of his tent. Ultimately, it became the primary consideration with the increase of population. The flocks and herds were not sufficient; the products of the garden were too small; and the cereal grain was extended over the surface of the earth, and became, what it ever since has been, the principal food of the nations. In this country we do not fully realize the old adage, that bread was "the staff of life," because here, animal food is so abundant, and so cheap, that bread may be considered merely as a condiment; while on the eastern continent, in Europe and in Asia, it constitutes almost the only food of a very large proportion of a large population.

Necessity, therefore, required first, that the immediate wants of man should be satisfied; and the garden was almost entirely abandoned. The mechanic arts, and even the fine arts, were introduced, as sculpture and painting, before horticulture was cultivated. Egypt, and Greece, and Rome, had almost reached the culminating point of their grandeur before their illustrious men bestowed their attention upon the garden; and then it became of so much consequence, that Cicero, Pliny, and Lucullus, have transmitted names as respectable and honorable, for what they did in the culture of the garden, as for their eloquence in the forum, or their literary attainments.

In modern times—take the country of our progenitors—gardening is even there a new science and a new art, in the enlarged and comprehensive signification of the term as it is now used; and a little more than a century has gone by, only that period, since a garden, that would now be considered even reputable, was not to be seen upon the island of Great Britain. Bacon recommended it. Milton most beautifully described a garden, and a garden planned precisely upon the most approved principles of modern landscape gardening, though he had never seen one; showing the vast stretch of his refined and mighty intellect. Looking over the present, and to the future, he comprehended the beauties of Nature, and the manner in which they should be developed. Pope may be considered as almost the first man who introduced ornamental cultivation in that island, and such has been its progress, so lucrative, and so important has it become, that Agriculture has deigned to take lessons for the extension of her own bounds, for the increase of her own products, from that species of tillage which was introduced in the garden. And now visit England, or read her works,

upon Horticulture, and you will find that the whole island is cultivated in the manner of a garden. What was once necessary, then beautiful, has now become important, to procure the greatest quantity of the cereal grains from the smallest space of ground.

In this country, as has been said by several gentlemen this evening, it is a new science and a new art; for, theoretically understood, it was but little practiced; and we are indebted not only to the writings, but to the example of some individuals, whose names I see inscribed upon these walls. To LOWELL, Gov. GORE, and PREBLE, and CUSHING—to our wealthy, enterprising merchants, and most influential citizens—to the President of this Society—the MANNINGS of Salem—Mr. Hovey, Mr. BUEL, of New-York, now deceased—the venerable gentleman upon my right, the author of one of the most useful agricultural and horticultural works in this country—to these individuals we are indebted, for having done more than it is in my power to relate, to give an impetus to all branches of tillage.

[Gen. D., after paying a well merited compliment to the horticultural triumphs of Mr. TUDOR, at Nahant, spoke at some length of the influence of woman in rural life, and concluded with the following sentiment:]

The Females of Massachusetts: To them is this Society indebted for the extension of all that is refined and honorable in Horticulture.

The President then said:

I am happy to state that we have present with us JOHN S. SKINNER, Esq., of Philadelphia, the editor of the first Agricultural paper ever published in the United States—more recently of the Farmer's Library and other kindred works, and now of the Plough, Loom and Anvil—all those have been conducted with a zeal and intelligence highly honorable to the author, and have received the approbation of the most eminent men of our country. I propose as a sentiment—

John S. Skinner, Esq: The uniform friend of Agriculture and rural economy—the annals of our country attest the value of his labors—may he never lack the sunshine of popular patronage, and may his last days be his best days.

Mr. SKINNER responded as follows:

Mr. President: I have been so often and so sorely disappointed on former occasions like this, that I determined to make an effort to come now, hit or miss—but if I had known that I should hit, or rather be hit by, an incident so confounding as this, it were better for me to have remained at home, laboring at “the Plough, the Loom, and the Anvil,” to which you have so kindly referred. To be brought into such prominence before such a company of my own sex, might not be so perplexing, but, sir, only look at this brilliant assembly of Ladies! who is there that might not feel embarrassed? and yet sir, “situated as I am,” as the man says in the play—what is left me but to “stand up and face the music.” And, besides, something in way of explanation, brief as it shall be, may be well enough for your own justification, and for that of my too partial friends, your associates, in bringing such an humble laborer in the

cause, so conspicuously before an audience so distinguished.

A few words biographical of that first journal devoted to Agriculture, may be necessary for most of these gentlemen whose recollections scarcely reach back thirty years—and as for the ladies! why sir, everybody knows that time itself cannot pile up as many years on their heads until all “note of time,” and all other things are drowned in the joys and responsibilities of a certain epoch! one sure to occur with all present, with whom it has not already.

Yes sir, it was just about thirty years ago, that he who has been thus honored with your notice, brought into existence the old AMERICAN FARMER, which, contrary to the common laws of physiology, grows stronger as it grows older.

Enjoying at that time various and responsible trusts, of which men more ambitious and more deserving might well be proud, as they were derived without solicitation on my part, from the personal confidence and esteem of such Presidents as Mr. MADISON and Mr. MONROE, yet as those trusts left some opportunity for intellectual employment, not to be thrown away, the question was—how the little leisure they presented could be occupied in a manner most useful to the country and most congenial to my own predilections, and the thought occurred again and again—how is it, that we have newspapers, commercial and religious, and literary—we have law journals and medical journals—and party journals, in abundance, which, if we believe both sides, would persuade us that all our countrymen are knaves or fools—or something worse—if anything worse can be—and yet we have not one organ to enlighten the course, and to vindicate the cause of Agriculture, by which all other classes live, and move and have their being! Thus shall it no longer be, thought the humble individual who has been here so highly honored—one voice at least shall be raised for the benefit and the claims of the cultivators of the soil, though that be but as a “still small voice in the wilderness.” The few friends with whom I consulted, it is most true, doubted the success of the enterprise. The subject was too dry—its dull round of labors, like a horse in a cider mill, neither possessed, or could they be invested, as they said, with any charms for the public. Well sir, to give it, on coming into the world the best chance that a good name could do. (for, trust me Ladies, there is something “in a name,” though for good and promising considerations some are at last prevailed on to change the one they have,) it was decided in this case to give the projected organ of the plow, a very broad catholic and comprehensive name; it was called the “AMERICAN FARMER,” and thus made to cast its title and its regards, over the whole country—and it was furthermore baptised in the name of Agriculture, “Horticulture,” (mind you Mr. President, Horticulture thirty years ago,) “Internal Improvements and Rural and Domestic Economy.” Now thinks I, a net spread thus widely must catch some fish, “any how you can fix it.”

When the printer sent me the first number, I looked at it with something of the solicitude, and

it may be some feeling akin to the pride that a young mother feels, when with emotions various and all unspeakable, she looks at her first-born! But sir after regarding it for sometime with hope not unmingled with doubt and anxiety, in recollection of the ominous prognostics of my friends, said I to myself—"well! upon the world you shall be cast, and however it may be disposed to receive and treat you, you shall not perish for want of sustenance until you have drawn me dry at least." While a single shot remains in the locker we will keep up the fire in defence of the right and the honor of the plough. True it is, there were but few shots there, as to pecuniary means, but what sensible warrior ever proclaimed to the enemy the low state of his ammunition? But lo! sir, just as I was going to fling my poor inexperienced bantling abroad to seek its fortune, to my horror it was found to bear date the *first* of April. *All fools day!* In utter dismay, I called to the Devil, (it was only a *Printer's* devil, Ladies) "Here—take it back to your Boss, and tell him he must *alter the date*, make it the second—make it any day of the month but the *first day of April!*"

"My friends to whom I mean to send it on a venture, will cast it from them, without examination, salutation or mercy, in the belief that Skinner means to make an April fool of us." Well sir, it quickly came back to me on the same day, with a forged date, for now it bore date as you will see the 2d of April 1819—but here again sir, was another perplexity not much less embarrassing than the first—for the second of April—*horrible dictu*—happened to be on *Friday!* yes sir, *Hangman's day!* What is to be done now, said I! for sir, you may with argument, oppose error and overcome prejudice; and with ridicule you may laugh folly out of countenance; but who can hope for victory, in a contest with *superstition!* Why sir, I have known good housewives in the country, and let me tell you that your country housewives are none of the worst—I speak from *some* personal observation in respect of Maryland, Virginia, the Carolinas and so along the seaboard to and along the banks of the Mississippi; yes, sir, I have known housewives, otherwise most sagacious and sensible persons, utterly refuse to put their cloth in the loom, or their quilt in the frame, on a Friday; though everything should be ready and waiting to go ahead; and as for putting their poultry on the goodly and important work of incubation on hangman's day; why Mr. President it would be accounted nothing short of "flat burglary" to think of such a thing! Well sir, after much and anxious cogitation—with the pressman standing ready and the printer impatient—I told them to let the crittur go with my poor blessing on its head, in the persuasion that with a careless and cruel world it might escape the over anxious scrutiny of the author of its being, and so fortunately it did—for ladies I can assure you, for your "aid and comfort," should any similar event happen nearer home, the dear little thing grew apace and prospered amazingly, though it did perchance first see the light of this wicked world on hangman's day! Ah but, ladies and gentlemen, the Editor then enjoyed the benefit of the correspondence and

good will of such men as JEFFERSON and MADISON and MONROE—the MINORS and the GILMORS and GARNET of Virginia—of the PINKNEYS and the POINNETTS and SINGLETON and HERBERMONT of the Carolinas, and PICKERING and POMEROY and PARSONS and DERBY and the BROOKS and the elder QUINCY and JAGGERS, aye, and even the kind words and kind wishes, as your agricultural annals will show, of a LOWELL—*clarum venerabile nomen!* So much for the parentage and birth of the "first Agricultural Journal published in the United States," of which and its unworthy founder such high and undeserved notice has been taken by one who himself leads in the field of a kindred and an older pursuit, animating by his example and inspiring confidence, like TAYLOR, in the field of *Buena Vista*.

[After some further remarks on Agricultural literature, Mr. S. continued as follows:]

Well, Mr. President, having thus sketched to their foundations, the works to which you have referred, by an infliction of unentertaining remarks, for which you may in some measure blame your own kindly disposition, I dare say you are impatient to have me conclude with the expression of some sentiment, or commentary, indicative of the feelings produced by all that we have seen, and all that we now see, exquisite and admirable in the way of rich and choice fruits and flowers—ripe and half ripe, in full bloom and half blown. And truly, ladies and gentlemen, the difficulty is not to *find*, but to *select* and present a single one, out of the crowd of lively impressions that must fill the mind and the heart of every beholder, and especially of the strangers who have come for the first time within the gates of Athens. Would you have us speak, Mr. President, of the vast and magnificent display of Horticultural skill and industry which but yesterday ornamented all these tables before us, with attractions hardly less graceful and splendid than that which surrounds them now—a display to which you, sir, may forever look back with the proud reflection—*Magna pars quorum fui*. Sir, I congratulate you on the brilliant finale to your presidential labors; your successor will have no easy task, as others have found before him, to tread in the foot-prints of his "illustrious predecessor." I recommend him to go to Lynn for a pair of seven league boots. Why, sir, to tell the whole truth about your exhibition yesterday, it *was* my purpose to have attempted a sketch of it. Yes, sir, I had proposed to make a rough sketch—a sort of outline of what I should see; but sir, when I did enter this room, with all these long tables groaning—no not groaning, but exulting—under their load of choice and magnificent fruits and flowers, all thoughts of description was at once abandoned. Why, a descriptive catalogue of the *apples alone*, contributed by my friend here, Mr. French, would make a paper as long as the long table they almost covered from end to end. I was at once struck up. I felt for all the world as that fair Queen must have done when she said unto the gallant king Solomon—I had heard much, and my expectations were wrought to the highest pitch, but since I have come to see what you have

in all their magnificence, I find "the half had not been told me." Oh, no, sir. The pen that describes that exhibition should be in the hands of a LOUBON, or a DOWNING, or of my too kind friend General DEARBORN, or of one no less kind, your own, Mr. PRESIDENT, if you will allow me so to say, or of a HOVEY, or my friend BRECK, erewhile Editor of the good old New England Farmer.

Not presuming then upon any attempt to do justice to your fruits and your flowers, might one venture to allude, in their absence, to some of your great and good men, and by great, understand me, not to mean your successful politician—your witty and clamorous demagogue, who may happen sometimes to get even into the highest places, as the crow may happen to light or be blown by a gust of wind upon the eagle's nest;—no sir, when I speak now of a great man, I mean a statesman, sagacious and profound—animated through life by a noble ambition to be useful to his country, to illustrate it by his talents—to elucidate its interests, to preserve its honor, and to seek its true glory in the maintenance of its character for justice and peace!—leaving popularity to follow or stay behind, according to the popular discernment or popular caprice; and, trusting to the sometimes truthful, but sometimes very slow and apparently very reluctant fiat of history! Sir, to sit for such a sketch, feeble as it is, on whom should I call but on WEBSTER!—"Black Dan, the great expounder," as we call him in the South. And then if required to go in search of an historian,—easily the first of American, if not of all living historians,—need we go beyond the gates of your own city, and whom should we name?—why PRESCOTT to be sure! And again will you allow me to name a scholar, alike erudite and elegant—one who has studied in their own tongues the literature, the institutions, and the philosophy of all civilized nations of ancient and of modern times—one who has risen, aye sir, in my humble esteem, *risen* from the station of ambassador, even to the first court of all Christendom, to a presidency—yes, sir, a presidency for which, when attained—as it can only be attained by knowledge and true worth—there can be no mistake about qualifications. And who is he? Sir, I need not beat longer about the bush—the name of EVERETT is uppermost in the minds of all who hear me. And though last not least, may I refer to another of your good men as well as great, though he too is absent; were it possible for Bostonians to forget him, we here, your honored and delighted guests, would promptly call upon you to be proud of one among the many, whose hearts expand quite as fast as their self earned and well-earned fortunes accumulate—one who has the foresight to lay the foundations of his bounty deep and strong, that its seed may be scattered as wide as the press can carry them, and as its fruits endure as long as your own rocks of New England. Sir, all unskilful as is the limner and feeble the sketch, is there any need to underwrite the portrait with the name of ABBOTT LAWRENCE?

Well sir—not daring to venture on a description of your Horticultural exhibition, which we all came to see; nor to portray in the colors they de-

serve, a few among your many great and good men, should I venture on the yet more dangerous task of anything like an adequate expression of what we strangers whom you have honored with your welcome, must say when we go home, as well as we can say of the yet more magnificent display you have so wisely, if not so cunningly contrived to get up of the *Fair* sex of old Massachusetts! Ah no, Mr. President! you have involved this humble advocate and worker at the plough, the Loom and the Anvil, in difficulties deep and wide enough already—that task must be left to some much more finished scholar—some gentleman of acknowledged discrimination and tact, and as it took a LEANDER and a BYRON to swim the Hellespont, your grateful guest must leave to such eloquent orators as speaker WINTHROP on your right, and Mayor QUINCY on your left, to essay compliments worthy of such a choice collection of ladies. May it not be indeed suspected without prejudice to those who were left at home, that every ladies' escort came here, like those who came with other offerings, to contend for a premium! I would that my friend KENNEDY was here at my elbow, to undertake what would be so congenial to his taste. And yet sir, I will venture to offer a sentiment, or a thought which may have interest for you gentlemen in the character in which we from abroad have the happiness to meet you at your bidding—as Horticulturists, and some application it may have for you Ladies:

The Nursery—in doors and out of doors It is there that measures should be taken to secure good fruit—both here and hereafter.

The President said that among our guests we are also favored by the presence of Mr. DOWNING, the author of several standard works on gardening and the rural arts. I propose—

A Downing, Esq. Abroad, Princes honor his name by the presentation of "Gold Medals"—at home, the sovereign people honor it, in many a lowly but tasteful cottage, and praise it amid the quiet beauty of many a lovely landscape.

Mr. Downing replied:

Mr. President—I am, I assure you, much at a loss to reply to these kind and flattering allusions. I should be entirely at a loss, did I not feel that they convey encomiums far beyond my deserts—for I am not vain enough to appropriate such unlooked for compliments.

I look around me this evening sir, with mingled feelings of pride and regret—pride, in the beautiful exhibition of yesterday and to-day, as an American—regret in it as a New-Yorker.

Year after year, we, cultivators of other states, find ourselves (a little unwillingly, perhaps,) drawn to these Boston shows, as to the acknowledged court of Flora and Pomona—the great focus of horticultural light in the United States. Why it is that other cities, why especially that of New-York, foremost in so many useful and beautiful arts, should lag so far behind in this, I cannot well understand. There is proof enough, all around me here, that the Yankee spirit is the spirit of all others to beget good fruits; there is proof enough, in all the annals of the fatherland, that the Dutch love flowers, and gardens almost

to a mania. Why then New-York, which is a mingling of these two races, should be thus distanced in the field of horticulture, is a problem harder to me than the Plymouth rock itself.

This mingling of the Dutch and Yankee blood seems to me indeed, to produce a love for fancy stocks—not for stock-gillies—a passion for Wall-street—not for Wall-flowers.

Exhibitions, beautiful shows, we do occasionally have—but not in a regular, not in a well-organised, systematic manner. The taste for horticulture in New-York, is a fitful flame, rather than a clear, steady light. Our movements, sometimes grand, sometimes feeble, resemble those of a child's watch, whose hands go half round the dial and then stop, as compared with the regular, steady, onward motions of this Massachusetts chronometer.

Perhaps sir, we in New-York, need a more zealous system of pushing, and might, in this respect, more properly be compared to that celebrated watch of *Capt. Cuttle's*, which DICKENS has made immortal, that huge, bulky old time-keeper which the Captain drew out of his breeches pocket with a noise not unlike pulling a bung from a barrel:—and, holding it out to Walter, just as he was setting out on the sea-voyage, said to him—"There Walter—take her for my sake—set her for'ard half an hour every morning, and a quarter every afternoon, and—she'll do you credit!"

I see, sir, in these grand exhibition fairs, fruits and beautiful flowers, without number. But this is not all. They have to me, a deeper significance than that conveyed to the senses by rich flavors, and delicious odors. I find in them a stronger spell than that which captivates the eye, or gratifies the palate. Yes—they speak to me—as I trust they speak to all us—of a religion of nature—an original, innate sentiment of the heart, which no change in our condition, no fall, no dark ages, have ever been able wholly to obliterate from the soul of man.

This yearning after the lost garden, must indeed be strong to force us, so many thousand years afterwards, to combat with the elements, to struggle with barren soil, almost to war with nature, in order to realise some of those early dreams of our race—those recollections which ever haunt us of a lost paradise.

Mr. President, I thank God that it does remain strong; for I look upon this beautiful art, and all those it involves, as being next to religion, the great humanizer of the age. Beneath this deep-rooted instinct for a garden—for a spot of earth which we can call our own—lies the germ of that love for home—I may say of that love of country, which most strongly distinguishes civilized man from the savage; which especially distinguishes him from the fisher—the hunter—and the rude dwellers in tents and wigwams.

I am, sir, an associationist, but it is such associations as this which I advocate; associations that teach men the beauty and value of rural life; where they may sit, not only under their own vine and fig tree, but amid their own blossoming fruitful orchards and gardens; homes created by their

own industry—embellished by their own taste—endeared to them by simple pleasures shared with their own families. This, Mr. President, is the true *ideal of Horticulture*; this is the good work which it promises to accomplish, and which more than any other pursuit, any other art, any other recreation, it does accomplish, that of bringing men into daily contact with nature—of giving them pure, simple, rational pleasure; and, most of all, of teaching them to find happiness, not, in the excitement of politics, not in the busy tumult of life; but in their country and cottage homes—there to understand and realise the truth of that fine saying of BURNS,

"To make a happy fire-side clime
For weans and wret,
That's the true patios and sublime,
Of human life."

The Delegation from the Pennsylvania Horticultural Society, the oldest in the United States, and between which, and our own Society exist the most friendly relations, was then called on—

The Pennsylvania Horticultural Society: With a more genial climate, a richer soil, and two years more growth than ourselves, it naturally casts a shadow upon us. We are willing to repose in its shade, if we may so netimes partake of its substance.

MORTON McMICHAEL, Esq., delegate from the Society, and Editor of the North American, responded, as follows—

Mr. President and Ladies and Gentlemen—I am here to-night as the representative of the Pennsylvania Horticultural Society; but as this is the first time the dignity of a foreign embassy has been conferred upon me, and I find myself in the presence not of one *Prince* merely, but of many sovereigns; in the presence, too, of a crowd of beauties such as no court but the court of love could parallel, I feel like the Irish Ambassador, alluded to by my friend, Mr. Skinner, that "situated as I am, indeed, I may say, sir, constrained as I am," my position requires "a deal of mighty nice consideration." The truth is, ladies, and I make the revelation especially to you, because I would not have it repeated out of doors, I am about as ill qualified for the duties which have devolved upon me, as Sir Patrick O'Plenipo was for the duties which were thrust upon him. Indeed, Mr. President, for since I have entered the confessional I may as well make a clean breast and disburden my conscience entirely, I am but a counterfeit envoy, a sort of horticultural Hayraddin Magraubin, with a borrowed herald's coat slipped over my own every day wear; and as I am very confident I should be detected if I attempted to persist in the imposture, and perhaps made game of, as was the case with the vagabond Bohemian, I own the "soft impeachment." Our society, sir, not unmindful of its own character nor insensible to the courtesies due to you, in addition to my excellent and estimable colleagues, had selected for this occasion a most accomplished and able gentleman, (William H. Dillingham, Esq.) deeply skilled in all the mysteries of your noble science, and of such sweet and voluble discourse that had he been present he would have imparted pleasure to this good company, and reflected credit on those by whom he was sent. Unhappily that

gentleman is detained at home by serious sickness. and is therefore rather to be "pitied for mischance than challenged for neglect;" and it is owing to this misfortune, that I am here, *longo intervallo*, to supply his place.

But, Mr. President, however incompetent I may be to meet the expectations which my absent friend would have, more than realized. I am at least able to say that it gives me unmingled satisfaction to be with you on this most interesting occasion. Turning aside from the dusty path of controversy in which it is my daily business to tread, and entering upon this scene of fragrance and of beauty—this scene, prodigal in its display of God's best gifts, and adorned by the presence of his fairest creatures—this scene so eloquently described by Mr. Winthrop, where the eye revels on the richest hues and the most exquisite forms, and the sense of smell derives delight from a thousand perfumes, such as "may defy what Araby, with all its odors, can against them do," and the palate is tempted by whatever is luscious or delicate, and the inner spirit rejoices in the associations which all these awaken—this scene,

"As full of sweetness as the month of May,
As gorgeous as the sun at midsummer."

I am thankful, deeply and gratefully thankful, for the privilege which has been vouchsafed to me. Yes, sir, this is, indeed, a spectacle admirable to behold—this is, indeed, a gathering of which any one might be proud to form a part. Upon these tables are spread the luxurious products of all other climes, rendered by the skill and enterprise and labor of you and your associates, contributive to enjoyment in our own; around these tables are seated wit and wisdom and loveliness—men eminent in hall, in council, and in field, and woman, bright with intelligence and beauty—

"The expectancy and rose of the fair state,
The glass of fashion and the mould of form."

And surely, sir, in such a presence, and at such a time, it is enough to fill the ambition of a common man, that he should be, though but for a moment, "the observed of all observers."

I congratulate you, Mr. President, and all other practical horticulturists, on your superior good fortune—I ought rather to call it your superior good sense—in beginning where most great men end, namely, in seeking happiness and ease among fruits and flowers and the gentle toils which are required to produce them. That is the true wisdom, for it is nature. Man drew his first breath—and it was a breath of Paradise, in a garden, and the instinct implanted at the creation has survived through all the periods of his existence, and it is not wonderful, therefore, that the master spirits of their age, wearied with success, sick of glory, and even of praise, should fly for refuge to the consoling cultivation of the earth. In proof of this we need not go to the "dark backward and abyss of time"—we need not refer to Dioclesian at Salona, or the earlier and nobler pictures of the elder consuls and dictators in the retirement of their villas and farms, improving the native vegetables of Italy, and acclimating the exotic fruits of Africa and Asia.

Our own country, from Washington at Mount Vernon down to the present day, is pregnant in

examples. Jackson had his Hermitage. Harrison his North Bend. The groves of Ashland shelter the declining years of the venerated Clay; and near the banks of the Mississippi may be seen the simple rustic abode of him whose deeds have obscured the fabulous exploits of the old-time chivalry. Your own great statesman—our own great statesman, for Pennsylvania loves and honors not less than Massachusetts loves and honors your illustrious citizen—refreshes his mighty intellect in the retirement of Marshfield. Even the sage of Lindenwald, no longer satisfied with the production of Kinderhook cabbages, has become so absorbed in agricultural pursuits that he has not only devoted his own whole mind, and heart and strength, but has actually given his eldest born to the agitation and discussion of a question of soil.

In these tumultuary times, Mr. President, when abroad, thrones totter and royalties run, and the spirit of progress, madly leaping across the chasm of centuries, seeks to drag the palpable present into the indistinct future; and, at home, we are in the very tempest and storm of a presidential contest—a violent triangular tornado, not to speak of earthquakes in New-York and gold mines in California—you, gentlemen horticulturists, can shut yourselves up in your gardens, shutting out the world with its bustle and turmoil, and shutting in contentment and peace—careless, amid your dahlias and japonicas, whether Prussia circumvents Austria, or as is most likely to be the case, each cheat the other. The French anarchy has fallen, but you, Mr. President, have raised a new variety of fear—and what is the extinction of an effete and exploded dynasty to the production of a delicious fruit? Charles Albert beats Radetsky; of how little importance is that compared to the fact that Mr. Hovey takes the first premium for flowers; or if Radetsky beats Charles Albert, it affords less interest than to know that Mr. French's fruits carry off the prize from all competitors. After all, sir, horticulture,—which may be regarded as philosophy teaching by roses and apples—is the only true pursuit; and *terque quaterque beati*; thrice and four times blessed are they, who, under its genial influence, are tranquil in the midst of excitements, and can afford to smile when money is two per cent. a month.

But, sir, it is time this prattle should cease; and now let me say, in sober seriousness, what in me, who am but a lay member, not entitled to any share of the praise, it may not be unbecoming to say, that the Pennsylvania Horticultural Society is an institution of which in Philadelphia we are justly proud. Composed as it is, for the most part, of men eminent for character, liberality, learning and knowledge—knowledge not alone of the science, or if you so please to call it, the art, which they are associated to promote, but also of all kindred and dependent sciences; and of women, whose daily lives are not less beautiful than the gentle flowers they nurture. It has exercised a wide-spread and beneficial influence. It has refined the public taste, while at the same time it has ministered largely to the public enjoyment. By diffusing a love for the graceful pursuits to which it invites, it has heightened the charm of social intercourse; and by bring-

ing together various classes, which would otherwise be separated. and giving to them a common object, it has strengthened the bonds which hold the community together. The effects which this society has produced are seen in all parts of our flourishing city. Every nook has its grass-plot or its flower-bed; and in the dim suburbs, peeping through broken window-panes, may be seen evidences of the healthful and happy spirit it has called into existence. In its more utilitarian aspects it is not less worthy of commendation. Since its foundation it has distributed ten thousand dollars in premiums; and our vegetable markets, nowhere to be surpassed, show how wisely and to what salutary purposes these premiums have been applied. This society comes here to-night, through myself and my associates, to tender to the society over which you so ably preside, the homage of its warmest esteem. It knows and appreciates your deservings. It acknowledges with gratitude the valuable results you have accomplished. It rejoices in the success which has marked your progress. It honors you for the enterprise you have manifested. It reciprocates the friendly feelings which have always marked your mutual intercourse, and it hopes—most earnestly does it hope—that the amity and good will, now so happily subsisting between you, may never be disturbed or interrupted.

The President then called on J. L. RUSSELL, Professor of Botany, &c., to the Society.

Professor RUSSELL responded:

The remarks of this evening allude to the great topics which interest the present age; Liberty, which, as it were, was cradled here; Equality, which recognises man as man everywhere; Fraternity, which without equality cannot be claimed or respected. The names upon the panels of this Hall, have been again and again alluded to, as the names not only of Horticulturists, but of scientific men; of men who have devoted their lives and their labors to the pursuit more particularly of natural science. If we look at the fact that at the present day, in all parts of the globe, in every ship and every steamer which visits foreign lands, the scientific man may go without fear, and will be welcomed as a brother; we shall feel that this is the principle which is to fraternise mankind; and especially is this true of those by whose labors the natural sciences are fostered, promoted and encouraged.

This city, famous for its arts and literature, has received into its bosom the greatest naturalist that the world knows, ACASSIZ, who from a single scale of a fish, will tell you its form, the age in which it lived, the food on which it fed, and the great functions it sustained in the history of the world; the gentleman who visits our nurseries, and though merely conversant with zoological facts and principles, gives to the experienced husbandman lessons that he may profit by, and teaches him to study with accuracy, the twig, the bark, the form of the trees, &c., in order to ascertain with correctness the real fruit he cultivates, and to settle that much disputed point, the synonyms of the fruits that are under cultivation. Let me in pursuance of this topic, offer you the following sentiment:

Horticulture the perfection of Agriculture: Which under the auspices of science, is capable of rendering universally applicable "Liberty, Equality, and Fraternity."

The President then gave:

Hovey's Magazine of Horticulture: One of the oldest Monthlies in the country, but still as flourishing as the freshest evergreen in the editor's own crowded nursery.

Mr. HOVEY, who had been obliged to leave, left the following:

The art of Cultivation: Only to be acquired by the application of mental and manual labor, a vigorous mind and an industrious hand.

[Admirable speeches, (which we had marked for insertion, but which a want of space reluctantly obliges us to omit.) were also delivered by the Hon. JOEL PARKER, Professor of Law at Cambridge, Ex-Governor MORTON, Dr. J. W. THOMPSON, of Delaware, H. N. HOOPER, Esq. and several other gentlemen. We have only space left for the following ODE, composed for the occasion, by Mrs. L. H. SIGOURNEY, and the sentiments which follow it:]

On a genial time, at the autumn prime,
Pomona and Flora were seen,
To wander where Bunker Hill sublime
Looks down on a realm serene,—
While from rich parterre, and green-house fair,
And the wealth of the laden tree,
Their Caskets rare, they had fill'd to bear
To the Cradle of Liberty.

They had heard its name, and the May Flower's fame,
In far off climes at first.
And now, with a fragrant offering came,
For the infant who there was nursed,—
So to Faneuil Hall their way they found,
Where Art and Nature smiled.
Yet, saw with surprise, as they gaz'd around,
The Cradle—but not the Child.

Then a noble form, with a welcome warm,
And a sparkling eye drew near,
Who had risen in glory, o'er blast and storm.
That had rock'd her cradle here,—
And the hand she press'd, of each honored guest,
And said with a tender tone,
That in Liberty's peaceful home of rest,
It was meet they should find their own.

So, their gifts she took, with a kiss of love,
For her heart was beating high.
At the beautiful garlands their skill had wove,
From the treasures of earth and sky,—
And they shad' in the cheer of their hostess dear,
And with roses crown'd her train,
Resolv'd ere the close of another year,
To visit her there again

The following sentiment by Hon. B. V. FRENCH, Vice President of the Society:

Horticultural Hall: Rightfully does it stand upon a spot long consecrated to education. Nature and art still keep a public school there, teaching not the dead language of departed nations, but the living language of truth and beauty addressed to every heart.

From Hon. HORACE MANN:

Horticulturists and Floriculturists: Noble men, who by improving the most beautiful works of nature, encourage us to improve ourselves.

From Hon. GEORGE LUNT:

The Massachusetts Horticultural Society: Which gathers into one splendid and lovely show the fruits and flowers, which so profusely crown the closing year; and surrounds

its festal board with beauty, of which these are but the types, and eloquence, speaking to the heart and elating with many voices, the otherwise inaudible silence of Nature.

From JOHN MILTON EARLE, President of Worcester County Society:

The Massachusetts Horticultural Society: First and foremost among similar institutions in this country, it can desire no higher honor, than to be judged by its fruits.

The President then gave:

The Press: Having lightning wires for helpers, it more than ever needs good conductors. Some of the old ones are as good as new.

The following toast was sent in by Mr. EPES SARGENT, of the Evening Transcript, in reply to a sentiment complimentary to the press:

Our Horticulturists: While the products of their gardens evince the perfection of culture, they themselves are a proof, that

"Man is the nobler growth our soil supplies,
And souls are ripened in our northern skies."

The next sentiment was:

The Ladies: The "Morning Glories" of creation, our fireside "Delights," and every day's "Heart's-Ease."

By Mr. E. M. RICHARDS, Vice President:

The next President of the Massachusetts Horticultural Society: May he ever aim to equal his predecessors in promoting the prosperity of this Association

Communicated by Hon JOHN S. CABOT, Vice President:

The Treasurer of the Massachusetts Horticultural Society: He will never give "leg bail," though a good Walker—A modest man, though his own Tulips (two-lips) praise him

By SAMUEL WALKER, Esq., Treasurer of the Society:

The President of the Massachusetts Horticultural Society: The Wilder man the better President. He has Marshalled the Society steadily forward in the path of improvement

By J. E. TESCHEMACHER, Corresponding Secretary:

Success to the soil, and to him who wisely cultivates it.

By JOSEPH BRECK, Chairman of Committee of Arrangements:

The Massachusetts Horticultural Society: A living picture of the beneficial effects of Industry, Cultivation, and fine taste, an emblem of "Paradise Regained."

By OTIS JOHNSON:

The City of Boston: The garden in which was first planted the sapling of our liberty, and in whose luxuriant soil it has flourished and become a mighty Tree.

By JOSIAH LOVETT:

Joseph Breck, the Chairman of the Committee on Flowers: Like his namesake of old, wearing well his coat of many colors, and generously yielding flower gifts to his brethren, even as Joseph filled the sacks of the children of Jacob.

By HENRY W. DUTTON:

Our Amateur Horticulturists: Though they deal largely

in stocks, they contrive to get hold of those only, which are continually going up.

By EBEN WIGHT:

The Golden Age: This fiction of the poets, in regard to the past, is prophecy in reference to the future; when every man shall sit under his own vine and eat the fruit of his own garden.

By J. L. L. F. WARREN:

This "Luscious Fruit"—these "beautiful flowers,"
Now sent to bless our joyous hours,
Were reared by sturdy yeomen;
But what the worth of "Luscious Fruit,"
Or sweetest flowers most earnest suit,
Without the "smile of woman."

This Fruit, these Flowers—thy sweat and toil
Are drawn from 'neath the sod,
But Woman comes from better soil,
The brightest "gift of God!"

Volunteer sentiments:

The Cultivators of the Grape: By never allowing its pure juice to become distilled—they—like the bright and heavenly flowers—will weep without woe—and blush without crime.

Uncle Sam's large garden: There is great confusion among its owners—some think it has too great exposure to the South—others fear an avalanche of "free soil" from its Northern hills, most have abandoned the Clay ground, a few cling to its Marsh-field, and many propose to call a Tailor (Taylor) to be Chief Gardener. May he not scorch the people with his goose, or make too free with the cabbage.

The Apple: Worthy of cultivation for its productive qualities—two apples make a pair—a dozen of pears cannot make an apple. Even an apple caused a pair to fall in Paradise, from whose seed have sprung many of the "Good Christians," always sound at the core.

A strange contradiction in Nature: The general effect of cultivation is to improve wild fruit—but it is an anomaly peculiar to the town of Dorchester, that there the Wilder fruit is the better.

Flowers of Fancy: The only flowers that culture cannot raise. "They come unlooked for, if they come at all"

Woman: If she lost us Paradise by plucking fruit for the lips, she regained it for us by planting the seeds of virtue in the heart.

Upon motion, the meeting adjourned for three years; and the assembly dispersed to their several homes, not only to dream of juicy fruits and fragrant flowers, but feeling that they had the strongest incentives to be zealous and active in the dissemination of that theoretical and practical knowledge which must become universal before the waste places shall be redeemed, and the Ancient and Honorable Order of Horticulturists shall rise to their deserved and pristine dignity, their pleasing duty being to "dress and keep," no longer a garden "cursed" and infested with "thorns and thistles," but a "Paradise Regained."—*Boston Courier.*

RIENING PEARS.—Those who have new varieties of pears, must bear in mind that many of them will never exhibit their excellent qualities, unless picked just before maturity, and the ripening completed in the house. Not only must all those liable to core-rot be treated in this way, but many others. In some cases, certain varieties should be gathered two or three weeks before ripe, to prevent insipidi-

ty. We suspect the low estimate placed upon the Onondaga or Swan's Orange pear, last autumn at Boston, was in consequence of its not having been taken early enough from the tree, in a peculiar season, as specimens in the possession of the writer, picked three weeks before mellowing, were found fully equal in flavor. When tasted side by side, to the Dix and Louise bonne of Jersey.—*Cultivator.*



THE DOUBLE BRUGMANSIA.

TO THOSE amateurs who like bold and showy plants, there are few novelties, among the exotics lately introduced to our gardens, more attractive than the Double Brugmansia, known among botanists as *B. Knightii*.

The above cut is a portrait of a fine specimen, presented us this summer by Mrs. EDWARD LIVINGSTON, of Montgomery Place, on the Hudson. It is a native of Chili, and is quite distinct from, and much more showy than the old and well known *B. arborea*, (*Datura arborea*, W.), of the green-houses. The flowers are pure white, long, and

trumpet-shaped, and in this species (?) are double,—one tube being inserted within the other. The immense size of the flowers—each about nine inches long, and the curiously *ruffled* appearance of the lower part of the corolla, make it a most conspicuous object when in full bloom.

The Double Brugmansia is a green-house plant; that is, it requires protection from frosts in winter; but, when grown in a pot, or tub, it requires one of large size, with an abundance of rich soil, and plentiful waterings, to grow it in perfection.

By far the best mode of growing it, in this climate, however, is that of turning it out in the open border about the last of May, in rich, deep, highly manured soil. Some specimens, six or eight feet high, which we saw in full bloom at Montgomery Place lately, were the most superb and striking objects in the large and beautiful flower garden of that demesne. Treated in this way, they grow most luxuriantly, and are loaded with flowers all summer. In October they are taken up, put into boxes or tubs, and placed in the greenhouse or conservatory for the winter. Here they are kept in a somewhat dormant state,

with only a very moderate supply of water, till the time comes for their being replanted in the open border, in the spring.

This plant is, as yet, quite rare in this country, though easily propagated by cuttings. Mr. BUIST, of Philadelphia, however, has propagated it in his collection, and esteems it as one of the most conspicuous ornaments of the flower garden, or the conservatory.

The flowers give out a most agreeable perfume, especially after nightfall. This genus of plants was named after Professor BRUGMANS, who wrote several botanical works of merit.

REMARKS ON THE CULTURE OF THE NEWTOWN PIPPIN.

BY S. A. BARRETT, MILTON, N. Y.

Is not the existing prejudice against this tree, particularly in the valley of the Hudson, ill-founded? It will flourish on any soil, in our latitude and climate, that is not too wet; and all that is requisite, to make it highly productive and profitable, is *judicious treatment*. *Feed it, keep it clean, and trim it but little*. Nature did not "get it up" on the plan of a locust tree; she gave it a full, well developed head, and we should do well to allow her to keep it so. In the cool, humid climate of England, thinning the heads of apple trees may be indispensable; but here, in the state of New-York, where we have the *extremes* of heat and cold,—our summers hot and sunny, and our winters exhibiting specimens of every clime and season—varying nearly a hundred degrees of temperature in a single day—the labor of *thinning* the heads of *apple* trees is worse than lost! It engenders premature decay, not only by wounding, but by letting in too much alternate

heat and cold, and diminishes the quantity, and deteriorates the quality, of the fruit. This important fact is becoming understood and appreciated; and the English method of pruning, so extensively and injuriously introduced into this country by English farmers, gardeners and nurserymen, is fast becoming obsolete. I have seen the Newtown Pippin thrifty in growth, and producing fine fruit upon light, sandy soils. I have seen it heavily laden with perfect fruit, upon strong gravelly, and deep sandy loams; and again, I have seen it bearing well upon stiff clay, and among slaty ledges, where an Alpine chamois might feel perfectly at home. But the soils which the Pippin most delights in, are a warm, gravelly, and deep, strong, sandy loam; but in no variety of soil will it put forth *all* its excellencies without some care. It should never incline *from* the sun; as it has, invariably, a rough bark, into which insects easily lodge their larva, and such a posi-

tion invites their attacks. It is sometimes urged against the Pippin, that it comes not into bearing as young as some other varieties of the apple. I have not found this *true*, so far as my observation and experience extend, where the tree has been duly cared for; on the contrary, with me, it surpasses every other variety. It requires more food, and therefore suffers more from neglect than other apple trees; but wherever it is properly treated, it bears very young and abundantly. I have it in several varieties of soil. I have it, and the Rhode Island Greening, of equal age, and treated alike, *on the same soils*, and the difference is in favor of the Pippin. The largest crop that I ever saw taken from one tree, at a single time, was from a Newtown Pippin—18 barrels of fair apples, and 7 bushels of refuse ones! I have a tree of this variety, now in fruit, from which, in 1844, I gathered 16 barrels, which were sold at \$2 the barrel; the quantity of refuse fruit from the same tree I do not recollect; but it was sold at two shillings per bushel for

cider. And here I will add, that the Pippin is unsurpassed as a cider apple. Six bushels make a barrel of juice, which, when refined, rates first in market. It may be said that the above named instances are of rare occurrence, and so they are; but who ever saw a Greening, or even a Russett, that could “do likewise?” If any one, who may happen to read this article, has Newtown Pippin trees that are unproductive of *fair* fruit, (I say “*fair*,” because the Pippin, from neglect, frequently produces cracked, blotched and *unfair* fruit,) let him *clean and dress them*, (if he wish to know *how*, I will tell him, if he apply,) and he will assuredly find them productive of such apples as have made, and justly, the Newtown Pippin world-renowned!

There is a prevalent error, respecting this fruit. *There is but one true Newtown Pippin*, and that is *green* or *yellow*; just as the soil, season, or culture may happen to make it.*

S. A. BARRETT.

Milton, Oct. 13th, 1843.

A VALUABLE NEW PEAR.

A VERY attractive new pear, of European origin, has been proved for three or four years past on the Hudson, which is yet but very little known generally, though it appears to us deserving of a trial in all parts of the country.

This pear was sent to us and others in this part of the state of New-York, some years ago, by the late ROBERT MANNING, Esq., of Salem, under the name of the *Ananas d'été*; having, as we understood, been received by him under that name from France or Belgium.

There are doubts, however, as to the cor-

rectness of this name. We do not find this variety described in any continental work, though it appears in some of the large nursery catalogues of France and Belgium.

THOMPSON, in the Catalogue of the London Horticultural Society, describes the *Ananas d'été* as a *brownish-red* pear, of obtuse pyriform shape, first size, second quality, and ripening in September. As the fruit before us is of a clear yellow, with no trace of *brown*, we judge it cannot be the

* Our correspondent (who is, as we know, a capital apple cultivator,) is not alone in the opinion expressed in this last paragraph; but is he correct? Ed.

variety referred to in the Society's Catalogue.*

The Ananas Pear of the French is described by NOISSETTE, in his *Jardin Fruitiér*, as follows:—"Such is the name borne by this variety in the Luxembourg garden. It is in form and size like a Doyenné; but its surface is uneven or knobby, (*bosselée*), and the stalk is longer and thicker than that variety; skin of a fine yellow, marked with dots, and a slight blush on the sunny side; flesh white, or a little yellowish, fine-grained, melting; juice abundant, sugary and vinous,—very good. This fruit gives out a good odor, but not that of a pine apple. It is, however, not the less a good pear. Its season of maturity is the middle of September."

Our fruit agrees in colour, and other respects, with this variety, described by *Noisette*; but its form is not that of a Doyenné, and its surface is remarkably smooth,—not irregular or knobbed.

So much for the doubts regarding the name. We mention them to draw attention to the subject, and ascertain the true name, if possible.

In the mean time, it is satisfactory to know that there are no doubts regarding the *good* qualities of this variety, in this climate.

It is a remarkably handsome summer pear; reminding us, by its smooth skin, and beautiful colour, of the Bartlett. In its healthy growth and vigorous habit, as a tree, in its coming early into bearing, and its productiveness, it also resembles the latter variety; and these qualities will, we think, when known, render it equally popular all over the Union.

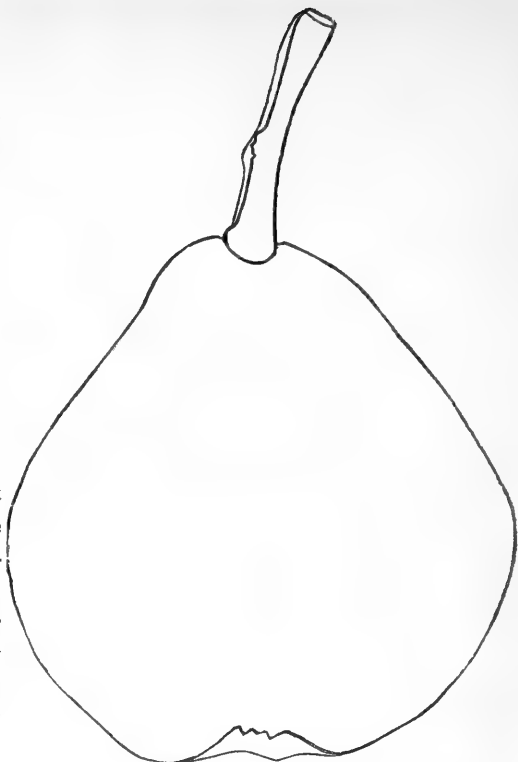


Fig. 31.—The Ananas Pear.

Mr. J. R. COMSTOCK, of Washington, Dutchess county, New-York, an extensive fruit grower, also received this variety about half a dozen years ago from Mr. MANNING. He has propagated it considerably, and has gathered fine crops of the fruit for the last three years. We have tasted remarkably fine specimens from his trees, and find him even more ardent in its praise than ourselves, since he ranks it before the Bartlett in all respects. He informs us that, with him, it is as hardy, prolific and thrifty as the Bartlett, either on pear or quince stock, while it is uniformly superior in flavor; that it comes early into bearing, and that the fruit keeps, and bears carriage to market remarkably well.

We hope this variety, which is yet scarce in this country, will receive a general trial

* Neither is it the pear described under this name in our work, the fruit of which was sent us, under this same name, by the present Mr. R. Manning. Ed.

by amateurs and fruit growers. We believe it will be found one of the few real acquisitions among the new European pears of the last few years introduction. We introduce the foregoing outline and the following description to enable pomologists to assist us in determining the true name. It may be that *Ananas d'été* (literally, *summer pine-apple*,) is correct, and that *Thompson* is in error in describing this pear.*

Fruit large, obtuse pyriform; skin very fair and smooth, of a beautiful clear yel-

low, marked with numerous small dots, and often with a blush on the side exposed to the sun; stalk strong and remarkably fleshy, from one to two inches long, rather obliquely inserted in a very shallow cavity, or without one; calyx with short segments half closed, set in a narrow, but rather shallow basin, which is slightly irregular; core small, considerably filled up; flesh white, fine-grained, firmer than that of the Bartlett, but of rich, sweet, and excellent flavor. Ripens at the middle of August.

SELECT LIST OF GREEN-HOUSE PLANTS FOR EARLY WINTER BLOOMING.

BY R. BUIST, PHILADELPHIA.

[SEVERAL of our correspondents having desired information, regarding green-house plants that bloom in the early winter months,—a season when flowers are particularly scarce and desirable, we lay before them the following list, carefully prepared by Mr. BUIST, so well known for his skill as an exotic florist. ED.]

Dear Sir: I subjoin you a list of plants, according to your request, that will all bloom, under ordinary culture in a good green-house, from October to January.

You have selected the most dormant season of Flora's kingdom for culling your bouquets. To supply any deficiency, art brings into operation some of the choicest annuals, such as *Schizanthus*, *Ten-week Stocks*, *Escholtzia*, *Iberis*, *Mignonette*, with an ample supply of *Scarlet Salvia*.

You have excluded the hot-house, which affords, at that season, more gayety in displaying the gorgeous *Euphorbias*, *Justicias*, *Passifloras*, *Allamandas*, *Bignonias*, *Hibiscus*, &c.

* It is proper to remark that the pear usually received from the French nurseries, under the name *Ananas*, has proved to be synonymous with *Henry the 4th*.

Many of the *Azaleas*, too, by a little artificial heat, are in bloom about Christmas. So are the *Cinerarias* and several other articles brought successively into bloom during the whole winter. I am, dear sir, yours most truly,

R. BUIST.

Philadelphia, Oct. 16, 1848.

-
- Abutilon striatum*, orange coloured.
 - venosum*, brown and orange coloured.
 - Acacia intermedia*, yellow.
 - saligna*, yellow.
 - Bouvardia triphylla*, scarlet.
 - Begonia incarnati*, flesh-coloured.
 - Cactus epiphyllum truncatum*, red and white.
 - epiphyllum truncatum violaceum*, violet and white.
 - Camellia alba pleno*, white.
 - imbricata*, crimson and white, }
 - fimbriata*, white, }
 - Jeffersonii*, rosy crimson, } Early
 - Sarah Frost*, crimson, } blooming.
 - candadissima*, white, }
 - americana*, blush, }
 - Feastii*, white and rose, }
 - Fordii*, rose pink, } Late
 - francofortensis*, crimson, } flower-
 - incomati*, pale blush, } ing.
 - Landrethii*, rose, [son,
 - Washington, Gunnell's*, crim-)

Cestrum laurifolium, white.
Chorizema varium, yellow and red.
Cyclamen persicum, white.
Daphne odora, white.
Epacris rosea, rose.
 variabilis, shaded blush.
 blanda, dark rose.
Erica mediterranea, pink.
 lactæa, white.
Geissomeria elegans, crimson.
Geranium comptonianum, lilac.
 Brighton hero, scarlet.
 Gen. Tom Thumb, scarlet.
Heliotropium intermedium, lilac and white.
Jasminum grandiflorum, white.
 multiflorum, white.
Justicia carnea, flesh coloured.
Linum trigynum, yellow.
Leschenaultia formosa, orange and red.
Manettia cordifolia, scarlet.
Metrosideros sempepflorens, crimson.
Melastoma nepalensis, lilac.
Nerine undulata, rose.
Olea fragrans, white.
Oxalis Bowii, rose.

Oxalis multiflora, white.
 caparina, yellow.
Pentas carnea, pale blush.
Plumbago capensis, pale blue.
Primula sinensis, of sorts, white and lilac.
Salvia splendens major, scarlet.
 fulgens, crimson.
 leucantha, violet and white.
Sparmannia africana, white.
Stevia serrata, white.
Viburnum tinus, white.
Viola neapolitana, lilac.
 odorata arborea, dark blue.

One word on *Viola arborea*, or "Tree violet." It is a fact, that many who read of this humble violet, expect to see, *at least*, a tree in miniature; it has no such appearance. In truth, very little distinction exists between it and the old Double Dark Blue violet, except its perpetuity of bloom, which it claims for six months of the year, refreshing the green-house with its odors the whole winter season. R. B.

FOREIGN NOTICES.

NOTES FROM OUR FOREIGN CORRESPONDENT—Ourley, on the lake of Geneva, 7th September, 1848. —Adjoining this spot, and within three minutes walk, commence the grounds of an English gentleman, of £12,000 per annum—a bachelor, who has lived here 32 years, and devoted his large income to the adornment of his place, of only 29 acres. You may imagine what \$60,000 a year, spent for 30 years, upon 29 acres, in this country, where labor is only a few "*batz*," (say 20 cents,) per day, will produce, when backed by a climate that allows of everything grown in England, and adds figs, grapes, aloes, &c. This gentleman liberally allows appreciative strangers the use of his grounds; and I assure you we have taken formal possession. The house is a cosy, English, home-like place, (not unlike, in its general character, Mr. D——'s, at Blithewood,) but more extended,—having a small centre, and more hid with ivy and vines, which quite cover in the long, rambling verandah, and hung in festoons from the eaves and roof-tree, wandering up in the most picturesque manner to the top of a round tower, that surmounts a mazy collection of offices, and connects the house with the stables. The rooms, which are the *perfection of comfort and cosiness*, for a bachelor, consist of a drawing-room, music-room, library; this brings you to the swell centre, which is a dining-room; then you

ramble out on the other side, with a billiard-room, and a sort of reading, smoking, *sans-souci* room; and then into an octagonal plant cabinet: all these are *en suite*, facing the lake, with French windows to the floor, opening upon a *lawn* that is worth a trip across the Atlantic to see; it is kept in order by some women, who wander about it like the Fates, with scissors in hand and basket on back, on the watch for some unlucky spire of grass that shows more than a quarter of an inch of nose, when they rush at it with a vengeance worthy of a better cause. Perhaps half an acre, about the house, including an English flower garden, (beds in the turf,) are kept by the *scissors and brush*; the rest is under scythe and broom. Then there are two or three stout fellows, who are enduring, or rather acting, the part of andromedas, chained, however, to a *rolling stone*, who are never weary, at least never cease dragging its slow length along. Nothing can be finer than the keeping and condition of everything, except a similar place, alike the hobby of an old bachelor of £24,000 per annum, instead of £12,000. There are large conservatories, green-houses, &c.; but the whole force seems devoted to the condition and luxuriance of the park trees, and the beauty and verdure of the lawn. The general character of the views from the house are not unlike those from Blithewood, except that

the mountains on the opposite side of the lake are much higher and wilder than the Catskills; in fact, many are covered with snow, and belong to the chain of Mont Blanc. The trees, at this place, were all choice varieties, planted 32 years ago, and carefully cultivated since; and consist, therefore, of superb specimens of the different pines, acacias, oaks, hollies, thorns, rhododendrons, bays, yews, &c.; as under-growth, magnificent specimens of Cedars of Lebanon and chestnuts, actually dragging their branches, like a willow, on the ground.

Great use is made of a most graceful tree, the Weeping Silver Birch, which, in one instance, is planted in the same hole with a pretty, drooping, fragile, dark looking cedar; and the two (some 25 years old,) have grown up together like two loving sisters; and their dark and silvery foliage, and graceful arms, gently entwined together, seem to cling fondly to each other for support—the Minna and Brenda of the Woods.

We pass our mornings here as at Wodenethe,—walking about the grounds until it is hot, and then taking our books "*sub tegmine fagi*," of which there are some admirable specimens; after dinner, at five, where we meet only Sir John W. and family, (some very nice English people,) we take a row on the lake,—in fact, just the life we should be leading if making a visit upon the Hudson, and therefore so home-like as to be very charming.

Munich is wonderful in modern art; in fact, it is Rome, Florence and Naples, as they looked centuries ago, when fresh and clean, and their public buildings *intelligible*, which now they are not, from grime and dirt and accumulated rubbish. At Augsburg, one of the oldest cities in Germany, we lodged in the "Three Mons," the oldest hotel in the world; having existed as an inn in 1306. Yours, H. W. S.

.....

THE STANWICK NECTARINE gives us, for the first time, a clear idea of the excellence of those fruits of Syria which appear destined to throw out of cultivation most of the stone fruits which Europeans have so highly prized. We are accustomed to point to the peaches of Paris and the White nectarines of Jersey as examples of all that is most delicious in the class of fruits to which they belong; but they are tasteless and worthless when placed by the side of the Stanwick nectarine. It is no exaggeration to say that this variety stands among nectarines where the finest Green Gage stands among plums.

The history of this admirable fruit is given in the "Journal of the Horticultural Society," by Mr. THOMPSON, who speaks of it thus:—

"Fruit of this new and extraordinary production was received August 29, 1846, from the Right Hon. Lord Prudhoe, in whose garden at Stanwick Park it had ripened. His lordship obtained the variety from stones given him by Mr. Barker, formerly her Majesty's Vice-Consul at Aleppo, and now residing near Suedia, or Souadiah, in Syria, whose favorable climate is peculiarly suitable for the cultivation of Asiatic and European fruits. A year or two since Mr. Barker brought to this country, amongst other things, peaches and nectarines with

sweet kernels. Such varieties were previously unknown in Europe, and were probably never heard of till their existence was announced by Mr. Barker.

"The nectarine forming the subject of this notice, is about the size of an Elruge, and like it in shape, except in being less heart-shaped at the base. Its skin is pale, like that of the White nectarine, where shaded, with a violet tinge next the sun. The flesh is white, exceedingly tender, juicy, rich, and sugary, without the slightest trace of the flavor of prussic acid. The stone is middle-sized, ovate, with rather a prominent sharp edge, very rugged, and of a chocolate colour. The kernel is sweet, like a nut, possessing nothing of the bitter almond flavor.

"The fruit of the peach and nectarine, partaking so much as it does of the quality of the bitter almond, must have been very deleterious in its unimproved state. Mr. Knight, who himself succeeded in producing a melting peach from an almond, figured Hort. Trans., vol. iii., p. 1, states that the Tuberes of Pliny must have been swollen Almonds, or imperfect Peaches; and Duhamel has given an account of a fruit which accurately corresponds with this description, being sometimes produced by a variety of Almond tree in France. Mr. Knight adds:—

"The bitterness in this case, I conclude, can only arise from the presence of the prussic acid; and as this acid, without being extracted by distillation, operates very injuriously upon many constitutions, some explanation appears to be given of the cause why the Peach was reported to possess deleterious qualities when it first came from Persia into the Roman empire."

"Stipantar calathi et pomis, quæ barbara Persis,
Miserat (ut fama est) patriis armata venenis."

Columella, lib. 10.

"The varieties of the peach and nectarine now generally cultivated retain but little of the injurious properties ascribed to the species by ancient authors; and, when well ripened, they can be generally eaten with impunity, notwithstanding the slight prussic acid flavor which pervades even their luscious sugary juice; but some constitutions are liable to be affected by this trace. It was, indeed, considered unlikely that amelioration would be carried much further. For at least a century little improvement has been effected, and in every variety the kernels have proved intensely bitter. But at last this is overcome; in the specimen above described the deleterious quality considered inherent in the species has disappeared; and Mr. Barker himself informed me that his fruits with sweet kernels may be eaten as a full meal, in quantities at any time of the day, and repeatedly, with perfect safety."

To this we have nothing to object except that it scarcely gives the Stanwick nectarine so high a character as it deserves. In fact, at the time when the description was written, its full value was imperfectly understood, the fruit which reached London having been damaged in the carriage. We have lately, however, been favored by His Grace the Duke of Northumberland, with a liberal supply, which arrived in the most perfect condition, and

we can now appeal to various persons near London who had the opportunity of tasting it, as witnesses to its unrivalled excellence. "The most delicious nectarine I ever ate." "The flavor is very delicious, and it is altogether most exquisite: I do not wonder at your speaking in such high terms of it." "It is a superb fruit." "Most delicious." Such is the language in which great judges of fruit, accustomed to the finest known varieties, have spoken of the specimens they received.

The public will naturally be anxious to know

how and where to procure such a nectarine as this. For their information, we have to state that the plants are exclusively in the possession of the Duke of Northumberland, and that His Grace has ordered them to be sold, either by public auction or private contract, as may appear most advisable, *for the benefit of an excellent, though ill-supported, charity, THE GARDENERS' BENEVOLENT INSTITUTION.* Upon this subject we shall have some remarks to make hereafter. *Gard. Chron.*

DOMESTIC NOTICES.

THE NATIONAL CONVENTION OF FRUIT GROWERS.—Since the publication of our last number, this convention met in New-York, in accordance with the call made by committees, representing the Massachusetts and the Pennsylvania Horticultural Societies, and the American Institute.

Finding that the room, provided at Judson's Hotel, Broadway, was not large enough to accommodate the members assembled, with their large contributions of fruit, the convention was held in *Clinton Hall*.

It was by far the most important assemblage of horticulturists ever convened in the United States. Almost all the northern states were represented; and from as far west as St. Louis, delegates and presidents of the various horticultural societies, appeared and took part in the proceedings. Not only was almost every horticultural society in the country represented, but a large number of the leading agricultural societies sent delegates. We were much impressed by the concentration of pomological talent in the convention; nearly all the leading fruit growers and pomologists of the country being present.

Besides these, we noticed men distinguished in our public councils, or scientific halls,—such as the Hon. J. C. GRAY, of Boston, THOS. ALLEN, Esq., of Missouri, Hon. JAS. ARNOLD, of New-Bedford, Dr. HARE, of Philadelphia, etc., all of whom took an active part throughout the whole proceedings of the meeting.

Between two and three hundred members were present; men congregated from various parts of the Union, and bringing with them the results of varied experience, obtained by years of industry, in different soils, latitudes and localities.

The convention was opened on Tuesday, the 10th of October, by General TALLMADGE, the president of the American Institute, who was chosen temporary chairman, for the purpose of organizing the convention. On motion, a committee of nomination was appointed to *nominate officers* for the convention, consisting of

SAMUEL WALKER, of Massachusetts,
S. B. PARSONS, of New-York,
THOS. HANCOCK, of New-Jersey,
J. W. HAYES, of New-Jersey, and
THOS. ALLEN, of Missouri.

And, also, a *business committee*, consisting of
J. J. THOMAS, of Macedon, N. Y.,
A. J. DOWNING, of Newburgh, N. Y.,
R. S. FIELD, of Princeton, N. J.

A committee was also appointed to receive and arrange the specimens of fruit, brought by the members of the convention. This occupied the whole of the remainder of the first day; the quantity and variety of specimens, brought from all parts of the country, surpassing the expectations of all present, and exciting universal admiration. The pears and grapes from Massachusetts, and other parts of New-England, and the superb apples from western New-York and other parts of the country, placed side by side, spoke loudly, both of the skill of cultivators, and the natural fertility of the soil in various parts of the country. It was allowed, by all present, to be the finest display of fruits ever made in the city of New-York. Among the remarkable specimens, we noticed a basket of magnificent Onondaga pears, from western New-York; another of Heath Clings, from the banks of the Hudson; beautiful Northern Spy apples, St. Martin's Quetsche plums, Aleppo grapes, and Beur-ré d'Anjou pears. The fair and delicious specimens of those old pears, the Brown Beur-ré, and Doyenné, abundantly supplied from the shores of Lake Ontario, were contrasted with the same varieties, almost worthless, from various other sections of the country, showing conclusively the importance of certain soils, either new, or artificially produced, for old varieties.

The comparison of the various fruits, thus brought together from all parts of the country, was almost continually going on; a great many facts were elicited, many synonyms detected, and a large amount of information imparted privately, which will not, of course, appear in the report of proceedings. Indeed, brought in contact, as we especially were, with this phase of the convention, we could not but think that even if it had been productive of no other good than this private interchange of opinions, the session would have amply repaid the labors of all its members,—so great was the union of knowledge possessed, and frankness in imparting it, displayed by all who were present.

The second day the convention organized, upon

the report of the nominating committee, by electing unanimously the following officers:—

President—MARSHALL P. WILDER, of Mass.

Vice-Presidents—Dr. W. D. BRINCKLE, of Penn.,

H. W. S. CLEVELAND, of New-Jersey,

Dr. R. T. UNDERHILL, of New-York,

HENRY H. CRAPO, of Massachusetts,

Dr. A. S. MUNSON, of Connecticut,

J. A. McINTOSH, of Ohio.

THOS. ALLEN, of Mo.,

M. YARDLEY TAYLOR, of Virginia,

LAWRENCE YOUNG, of Kentucky,

RUSSELL MATTISON, of Vermont.

Secretaries—S. B. PARSONS, of New-York,

GEO. DEACON, of New-Jersey,

P. BARRY, of New-York.

Col. WILDER was conducted to the chair by Gen. TALLMADGE, when he opened the session with some excellent and appropriate remarks. He presided throughout with a dignity, urbanity, and knowledge of the business in hand, that gave the most complete satisfaction.

Among the first points of business, taken up the second day, was the appointment of the following *special fruit committee*:—

A. J. DOWNING, of Newburgh, *Chairman*.

J. J. THOMAS, of Macedon, N. Y.,

R. MANNING, of Salem, Mass.,

GEO. GABRIEL, of New-Haven,

S. WALKER, of Roxbury, Mass.,

J. LOVETT, of Beverly, Mass.,

THOS. HANCOCK, of Burlington, N. J.,

L. C. EATON, of Providence, R. I.,

H. W. S. CLEVELAND, of Burlington, N. J.

This committee was instructed to bring in a list of approved well known fruits for general cultivation. After considerable discussion, they submitted to the convention a list, composed of only a few varieties, with a statement, that although many more fruits were equally deserving of a place in the list, yet from their value being as yet only fully ascertained in certain districts of the Union, the committee did not as yet consider it wise or prudent to recommend them for general cultivation. They deemed it proper to report a small list, and leave it to be enlarged by further action at a future convention.

The following is the **SELECT LIST OF FRUITS FOR GENERAL CULTIVATION**, as adopted, after critical examination, by the whole convention, viz:—

APPLES.

Early Harvest,	Rhode Island Greening,
Large Yellow Bough,	Baldwin.
American Summer Pearmain,	Roxbury Russett.
Summer Rose,	<i>And, for particular localities,—</i>
Early Strawberry,	Yellow Bellefeur.
Gravenstein,	Esopus Spitzenburgh,
Fall Pippin,	Newtown Pippin.

PEARS.

Madeleine,	Flemish Beauty,
Dearborn's Seedling,	Beurre Bosc.
Bloodgood,	Winter Nelis,
Tyson,	Beurre d'Aremberg.
Golden Beurré of Bilboa,	<i>And, for particular localities,—</i>
Bartlett,	White Doyenné,
Seckel,	Gray Doyenné.

PEACHES.

Grosse Magnonne,	Coolidge's Favorite,
George IV.,	Bergen's Yellow,

Early York, *severed*,
Large Early York,
Morris White,
Oldmixon Freestone,

Crawford's Late.
And, for particular localities,—
Heath Cling.

PLUMS.

Jefferson,
Green Gage,
Washington,
Purple Favorite,
Purple Gage,

Bleecker's Gage,
Coe's Golden Drop,
Frost Gage.
And, for particular localities,—
Imperial Gage.

CHERRIES.

May Duke,
Black Tartarian,
Black Eagle,
Bigarreau, or Grafton,

Knight's Early Black,
Downer's Late,
Elton,
Downton.

The question of a list of *rejected fruits* was also largely discussed by the convention, and referred to the committee, where it was determined that, though a measure of the greatest importance to fruit growers generally, it requires more time, and a more thorough trial of the inferior varieties; it was, therefore, deemed expedient not to report such rejected list till the next session of the convention.

A large part of this and the succeeding day's proceedings were occupied by discussions in open convention, touching the merits and the cultivation of a great number of varieties of *new fruits*. These discussions were in the highest degree interesting, since they embodied the practical knowledge of many of the best fruit growers and pomologists in the Union. Our present limits do not permit us to lay them before our readers; but they will be fully presented in the *Report*, soon to be published in pamphlet form for distribution; and we shall give a condensed view of some of the most important conclusions in our next number.*

Among the most interesting proceedings of the 3d day of the session, was the reading of essays by various gentlemen; among others, one by Dr. HARE, of Philadelphia, on the disease called the *yellow*s in peach trees, and one by Dr. MUNSON, president of the New-Haven Horticultural Society, on the culture of the pear. The *special fruit committee* also examined all specimens of new seedling fruits brought before them, and reported on their qualities. Before adjourning, the convention decided that, in consideration of the growing importance of the culture of fruits in this country, and the increasing interest in pomological science, it should resolve itself into a permanent body, and hold a session every year; that, since it is composed mainly of *representatives* from all the leading horticultural and agricultural societies in the Union, it shall take the title of the **AMERICAN CONGRESS OF FRUIT-GROWERS**;† and that, to enable it to carry out the plans of the present session, the same officers should be continued in office throughout the next session.

It was also decided, in order to collect the largest possible amount of information on the subject of fruits, (ripening, as they do, at all seasons of the year,) that a **GENERAL STANDING FRUIT COMMITTEE** be appointed, to be composed of *state fruit*

* Copies of this Report will, we understand, be sent, as soon as published, to every delegate and member of the convention.

† There is in France a body of cultivators of the vine, which assembles annually, called the *Congress of Vine-growers*.

committees, (consisting of not more than five persons in each state, and the Canadas, represented,) with a chairman of the whole, and a chairman in every state; the president to be a member ex-officio; its investigations to be constantly going forward, and the reports of its correspondence and labors to be made at the next session of the congress, in the autumn of 1849.

GENERAL FRUIT COMMITTEE.

New-York.

A. J. DOWNING, *Chairman of the whole.*
J. J. THOMAS, Macedon,
HERMAN WENDELL, Albany,
P. BARRY, Rochester,
BENJ. HODGE, Buffalo.

Massachusetts.

SAMUEL WALKER, Boston,
F. W. MACONDRAY, Dorchester,
P. B. HOVEY, Cambridgeport,
J. LOVETT, Beverly,
R. MANNING, Salem.

Ohio.

J. A. MCINTOSH, Cleveland,
A. H. ERNST, Cincinnati,
S. P. HILDRETH, Columbus,
F. W. SCOTT, Toledo,
T. H. HUMRICKHOUSE, Coshocton.

Pennsylvania.

WM. D. BRINCKLE, Philadelphia,
THOS. HANCOCK, Burlington, (N. J.)
E. W. KEYSER, Philadelphia,
THOS. P. JAMES, Philadelphia,
ROBERT BUIST, Philadelphia.

New-Jersey.

H. W. S. CLEVELAND, Burlington,
RICHARD S. FIELD, Princeton,
ISAAC PULLEN, Hightstown,
J. W. HAYES, Newark,
J. S. CHAMBERS, Trenton.

Connecticut.

GEO. GABRIEL, New-Haven,
A. S. MUNSON, New-Haven,
H. W. TERRY, Hartford,
GEO. OLMSTEAD, East Hartford,
V. M. DOW, New-Haven.

Vermont.

RUSSEL MATTISON, North Bennington,
CHAUNCEY GOODRICH, Burlington,
MARTIN SLOCUM, Manchester,
B. F. FAY, Bennington.*

Rhode Island.

L. C. EATON, Providence,
STEPHEN H. SMITH, Smithfield,
ALFRED SMITH, Newport,
J. J. STIMSON, Providence,
— COMSTOCK, do.

Maine.

HENRY LITTLE, Bangor,
S. L. GOODALE, Saco,

Maryland.

SAMUEL FEAST, Baltimore,
WM. CORSE, Baltimore,
LLOYD N. ROGERS, Baltimore.

District of Columbia.

JOSHUA PIERCE, Washington,
J. F. CALLAN, Washington,
WM. BRACKENBRIDGE, Washington.

Delaware.

J. W. THOMPSON, Wilmington,
EDWARD TATNALL, Wilmington,
JAS. CANBY, Wilmington.

Kentucky.

LAWRENCE YOUNG, Louisville,
WARD BROWN, Frankfort,
HENRY DUNCAN, Fayette,
JAS. ALLEN, Nelson,
GEO. W. WEISSENGER, Louisville.

Illinois.

J. A. KENNICUTT, Chicago,
JNO. S. WRIGHT, Chicago,
J. Y. SCAMMON, Chicago,
W. ARNOLD, Alton,
J. W. TURNER, Jacksonville.

Indiana.

J. D. G. NELSON, Fort Wayne,
D. IRVINHART, Logansport,
— SCOTT, Madison.

Missouri.

THOS. ALLEN, St. Louis,
LEWIS BISSELL, St. Louis,
JAS. SIGERSON, St. Louis,
NICHOLAS REIHL, St. Louis,
EMILE MALLENCRODT, St. Louis.

Canada.

C. BEADLE, St. Catherines,
JAS. DOUGALL, Amherstburgh,
JNO. FROTHINGHAM, Montreal,
GEO. LESLIE, Toronto.

By the aid of this committee, composed, as it is, of men of practical knowledge, the CONGRESS OF FRUIT-GROWERS will, it is hoped, be able, at no very distant day, completely to achieve the important objects which the public has entrusted to its care. To do this, time, careful investigation, as well as active correspondence, and comparison of facts, are necessary. But these, we are satisfied, will not be wanting; and we confidently look forward to this body of practical cultivators, and scientific pomologists, to achieve what neither local societies nor experimental gardens can possibly achieve, in a country so broad and so varied in its soil and climate as the United States. We are satisfied, from what we saw of the intelligence and the admirable spirit, which actuated the whole assembly at its first session, that it embodies the talent and experience necessary to bring about the desired results; and we congratulate the agricultural and horticultural interests of the country on the formation of an association, so pregnant with usefulness to every cultivator of the orchard or the garden.

The congress adjourned on the evening of Thursday, Oct. 12, after a most interesting session of

* The gentleman at the head of each state committee is chairman of the committee; and where there were not five members appointed, it was decided that he should be allowed to fill up the same.

three days; a session which will be long remembered by horticulturists, as, perhaps, the most intelligent, dignified, and satisfactory meeting of the kind ever held in the country,—where the general spirit that pervaded it was the strongest desire for progress, in pomology and fruit culture, and the determination to sink all sectional feelings, and work together with one spirit to attain this result.

The next meeting of the *American Congress of Fruit-Growers* was fixed for the first Tuesday of October, 1849, in the city of New-York.

.....
THE SUMMER HAGLOE APPLE.—We notice, in looking over the proceedings of the Buffalo Pomological Convention, that Mr. Prince commented on the error which Mr. COXE and other authors (including us also,) had fallen, confounding this apple with the Hagloe Crab. Mr. P., we presume, when he made the remark alluded to, had not examined the two last editions of our work on Fruits. He will find that in the two last editions of this work, a great number of errors previously extant in all pomological works, were corrected—among others, those relating to the *Summer Hagloe* apple, the *Pavie de Pomponne peach*, the *Pomme Royale* apple, &c., &c. The state in which we found the study of Pomology when our *Fruits and Fruit Trees* was written, rendered it impossible to avoid certain errors, but we trust critical pomologists will do us and any other author, the justice to examine how far such errors have been ascertained and corrected.

.....
A COUNTRY SEAT ON THE HUDSON.—We invite the attention of those of our readers who are about settling in the country, to our advertising sheet.

The country seat offered for sale there, is the property of one of our neighbors, and is not only one commanding a view equal to almost any on the Rhine, but it has, we think, the merit (rather rare among country residences,) of having been planned with a view to producing an income. The orchards upon it—all of them good and in the finest condition—are most judiciously planted with select market fruits, upon a soil remarkably productive.

To a gentleman interested in fruit-culture, who wishes to occupy his time profitably, and enjoy at the same time the pleasures of a home amid the finest scenery in the country, this is an opportunity rarely met with.

.....
TO KEEP CELERY AND CAULIFLOWERS.—We recommend strongly to those of our readers who find any difficulty in preserving celery in a sound state, the mode of keeping it out of doors mentioned in a former volume, by one of our correspondents. We have seen no method so successful.

It is simply this; instead of taking the plants into the cellar or root-house, (where they are always more or less liable to decay,) bury them, when you are forced to lift them out of the trenches, in any open, dry part of the garden. Choose

such a spot; lay in (in an inclined position,) a row of plants, leaving the green tops out of the ground; cover this row with soil, say a layer of three or four inches; then lay in another row, covering as before, until your whole stock is thus disposed of. Press the earth slightly upon the roots as you cover the plants. You will find that a small plot of ground will cover a great many heads of celery. When the whole is thus buried, cover it with a layer of straw, 2½ feet deep. This will keep out the frost, and you can go at any time and get a few days' supply of celery,—while the uniform cool temperature maintained in the soil prevents decay. A few boards or poles should be laid over the straw to keep it in its place.

Some of our readers may not be aware that cauliflowers may be had all winter, by taking up such plants as have not yet formed any flowering heads when the sharp weather sets in, and replanting them in three or four inches of soil in the bottom of any cellar or root-house, sheltered from the frosts. It is not necessary that they should have any light in frosty weather, and they may be re-planted as closely as they will stand. Our table was supplied with delicious cauliflowers during the whole of last winter by this simple means.

.....
COVERING TENDER PLANTS.—In covering half hardy plants for the winter, be careful not to injure them by binding straw too *tightly* about the branches. It should be put on rather loosely, so as to permit the air and light to have partial access.

Branches of evergreens, or tops of ferns, are much preferable to straw when they can be readily procured. Old *straw* bee-hives form an excellent protection, and straw conical shelters are expressly made for covering plants by many gardeners in Europe.

Never forget in covering tender plants that it is not warmth that you are expected to produce—but to guard against sudden changes of temperature—and especially against the rapid thaw which often occurs after very severe and frosty weather. Hence the steady uniform low temperature of a northern exposure, is more favorable to many tender shrubs than warm sheltered aspects, liable as the latter are, to such continual fluctuations.

.....
TRIOMPHE DE LA DUCHÈRE ROSE.—Allow me to say, that among the few really beautiful roses, every way worthy of a place in our gardens, *Triomphe de la Duchère* deserves a conspicuous position. It is a Bourbon, of fine habit and vigorous growth, blooming profusely in clusters,—the flower a deep rose, (in the centre,) shaded off to white. Yesterday I counted 104 flowers and buds, on a bush of this sort in my garden. Indeed, at the present time, and until frost, it will be a most conspicuous object. Yours, *W. W. Valk. Flushing, L. I., September 19, 1848.*

STRAWBERRIES AND WINE.—*Dear Sir:* I discover, by the Horticulturist of the present month, that its editor has again caught LONGWORTH napping. If it be true, I trust he will receive no mercy; for, to my knowledge, he has cultivated the old Hudson for near 40 years, and given it special attention; and it is still more cultivated in this great strawberry market than all other varieties united. But I would advise the editor to be cautious, and not exult too soon. "You no catch-e, you no hab-e," as the Congo says. But people in the back woods are not expected to be as learned as they are in the eastern states; and yet, I discover that a horticulturist, of Boston, advertises three new seedlings for sale, of superior excellence, in Hovey's Magazine; yet, does not himself know whether they be staminate or pistillate. Surely, then, LONGWORTH, if his eyesight be not good, may be excused, if he failed to notice the LONG NECK, of the old Hudson. But there is one other fact stated, that leads me to advise the editor of the Horticulturist not to be too positive; for it is stated, as an objection against the eastern Hudson, that the extreme point of the fruit often remains green, after the other part of the berry is fully ripe. This is never the case with our Hudson.

I fear the fact, that the Hudsons, got of Mr. ERNST, had a neck, may be explained away, unless Mr. Editor is correct in saying, that pistillates become staminate by running. I had a bed of the Necked Pine, (a variety that has been cultivated here about 20 years,) become nearly all staminate, and with the peculiar leaf of this variety, and bore not even a defective berry. I took it for granted it was a seedling that came up in the bed, and having no children to nourish, had, in a single season, obtained possession of half the bed. In the Garden of Eden, two of my tenants, McAvry & Schneike, have raised thousands of seedlings from the Hovey and Pistillate Keen, and also from Taylor's Seedling, impregnated by Swainstone Seedling, and all bear a strong resemblance to the mother, both in the fruit and plant; and I doubt not such would be the case, with a chance seedling in the bed of Mr. Ernst. [Our correspondent will observe, in another column, that Mr. ERNST says the Hudson occasionally grows with a neck. ED.] Out of the thousands of seedlings raised by the two persons named, there are three only which they deem worthy of cultivation; one is pistillate, the other two staminate, and all promise to surpass the Hovey in size, which they will find no easy task. The staminates, this season, (their first bearing,) produced a full crop; but it is no evidence that they will continue to do it. A gentleman from Boston, who saw the fruit of one of the staminates, gave Mr. SCHNEIKE \$6 for a dozen plants. It strikes me as singular, that the great horticulturists of Boston pay so little attention to the strawberry. In their zeal for other fruits, they put all other regions to the blush. Why not, from their 1200 varieties of the pear, throw away the 1080 worthless ones, and substitute new strawberries in their place? Mr. HOVEY stated, some two years since, that they had but three varieties worthy of cultivation. He repeats it in his last number. The three kinds are, the Early Scarlet, Hovey's Boston Pine, and his

Seedling. The Scarlet we do not cultivate, as we deem its only value is as an impregnator, and we have other staminates that bear a better crop. The Boston Pine we have proved to be a poor bearer. The only one of the three which, in this vicinity, is deemed worthy of cultivation, is the Hovey; and this is chiefly valued for its extra size. In this region, a few of the berries are larger than any other varieties. The average size, not as large as some others, and its quality not as good. Strawberries that require more sugar are preferred in our city. From what I learn from all our horticulturists in this state and Kentucky, it does not prove a great bearer, and the plants die out the second year, and are less vigorous and hardy than the kinds we cultivate extensively. It is not deemed valuable to cultivate, as a market fruit. I discover, from a letter in the Horticulturist of this month, from Poughkeepsie, that in your state it is a less valuable fruit than it is with us. He describes it, as "far behind all others." I cannot concur in this opinion. The great size of some of its berries makes it a plant of great interest. The Prolific Bee-hive Strawberry, (a single plant of which bears from 200 to 400 fruit,) I venture to predict will prove a humbug. The size of the fruit must always, to a certain extent, depend on the quantity which the plant bears. I had a Kentucky pistillate seedling, taken from the woods, a single plant of which, without careful cultivation, had on it, at the same time, 200 ripe fruit; and I sent it to our horticultural society. The fruit was very small. The plants that had 50 on, the fruit was of nearly double the size. Mr. JACKSON sent to the horticultural society a Duke of Kent, with 250 fruit on it. I do not believe any plant can bear an equal quantity, and have large fruit. Yet, the Duke of Kent is only valuable as an impregnator, and for its early ripening. Quere, will a small fruited staminate produce as large fruit, on a pistillate, as a large fruited staminate? All the good bearing staminates, that I have seen, bear some flowers purely pistillate; and thereby, bear a better crop, and some larger fruit in consequence. A large fruited staminate may be raised of this character, and be very valuable. The Eberlin Seedling has both pistillate and staminate blossoms, and is one of our best staminates, as Mr. HUNTSMAN justly remarks. Who is right, in relation to the famous staminate Keene? Mr. HOVEY says "it was a fine bearer, but not hardy." With us, it would not average one-tenth of a crop.

What think you of the opinion of the Buffalo convention, in relation to the quality of the Washington pear? We consider two kinds, only, its equal: the White Beurre, and the Seckel.

My vine dresser expected to make 25,000 gallons of wine. But the rot came, and they now calculate on 8 or 9,000 gallons only. Some vineyards lost none; and the culture has increased so much that we shall have double the yield of any former year; and the harvest is much richer than in any former year, and must make wine of superior excellence. My sparkling Catawba, manufactured last year, made 9000 bottles. I expect, next season, to double the quantity; and fearful my health might not enable me to give it the necessary per-

sonal attention, I have interested Mr. BRACKMAN, a German wine merchant, in the business, who will hereafter superintend it. *N. Longworth. Cincinnati, Sept. 17, 1848.*

RARE PLANTS AT THORBURN'S.—Sir—Allow me to lay before you the following account of Messrs. THORBURN'S Nursery Garden at Astoria, which I hope you may deem worthy of a place in your Horticulturist.

The plants generally in the Nursery Garden of Messrs. THORBURN, at Astoria, are in good condition. The Camellias, of which there are many fine specimens, are full of flower buds, and bid fair for an abundant supply of flowers, for the ensuing winter and spring. One of these plants, a magnificent specimen, upwards of twelve feet high, has yielded two hundred dollars' worth of flowers during the last two years. *Hoya imperialis*, a rare tropical plant; *Clerodendrum splendens*, also rare, as well as *Begonia coccinea*, *Begonia manicula*, *Begonia fuchsoides*. The three first named species are pretty and curious; the last blooms with gracefully pendulous bright scarlet flowers. Among others worthy of note, are *Gardenia Stanleyana*, rare, *Gesneria Geraldina*, rare and beautiful, *Cyrtocera reflexa*, *Acacia dolabriforma*, a new species from Australia, *Aristolochia labiosa*, a rare plant from South America, with immensely large flowers; *Cactus senilis*, (Old-man cactus,) a fine specimen; *Oxalis speciosa*, beatifully in bloom; *Euonymus latifolia*, a hardy shrub, whose scarlet capsules render it at once conspicuous and beautiful; *Ipomea ficifolia*, a new species, with pink flowers, very desirable; *Maurandia rosea*, *Maurandia alba*, both pretty; and forming a pleasing harmony of colors when intermixed with *Maurandia Barclayana*; *Dolichos purpureus*, an interesting twining annual; *Ceropegia elegans*, with flowers singular in form and color; *Heliotropium voltairianum*, a new species; *Gladiolus Queen of the Netherlands*, new; *Abutilon*, a new species with large flowers; *Nepenthes distillatoria*, a very fine specimen of Pitcher plant; *Russelia juncea*, two plants in pots, whose pretty scarlet flowers and graceful habit of growth, well accord with the classic vases in which they are placed. There is also a new variety of *Azalea*, named in honor of the Duke of Devonshire; *Wigelia rosea* and *Spirea pubescens*, both rare and hardy shrubs. *Lutrosideiros lanceolata*, a very large plant in flower; *Magnolia soulangiana*, a fine plant; *Magnolia conspicua*, a magnificent plant and very abundant flowerer.

Messrs. THORBURN have erected a new forcing-house, chiefly intended for the growth of roses. Its dimensions are 75 feet long, 16 feet wide, and 9 feet high, with a span roof at an angle of 45 degrees. It is to be heated by smoke flues, worked by two furnaces. Shelves have been erected for small plants in pots. But the ostensi-

ble object is the *pit*, which is nearly three feet deep, and is being filled with rich compost, to be planted with the most choice roses. It is provided with an air chamber underneath, which will be supplied with heated air through the aperture in the wall, and by its very efficient drainage will prevent any accumulation of moisture to a degree to cause mildew. It is a house well adapted to the growth of roses, and will, no doubt, contribute many a lovely rosebud to the beautiful bouquets furnished by that establishment. *F. E. New-York, October 16, 1848.*

SPECIAL MANURES.—PEAR SEEDLINGS.—We alluded in our last number to the fine specimens of the old pears grown by Col. WILDER, of Boston, and Mr. WASHBURN, of Plymouth, Mass., by the aid of special manures.

The former gentleman has just sent a note from Mr. WASHBURN, giving his success in raising pear seedlings by the aid of special manure, as follows.

"I have a fine lot of pear seedlings, raised from twelve bushels of pear pumace, sown broad cast in rows, (700 feet in all.) They were manured with compost in the following proportions: 1 load muck, 2 loads stable manure, 2 barrels iron rust, 1 barrel bone dust, 2 barrels wood ashes. The whole composted last September—the manure applied in the fall, and the seeds sown May 1st. Other seeds planted on the same land without this compost, but with stable manure, have produced plants that rusted badly, and are not one-quarter the size of the first lot, which are fine, strong stocks. *John Washburn. Plymouth, Sept., 1848.*

ENORMOUS PEACH.—Dear Sir—A correspondent of the September number of the Horticulturist, dating from Edwards, Miss., states, that a seedling peach tree raised there, which he calls the "Elmira," bore peaches (if I understand him rightly,) which measured eight inches in diameter. Also, after enumerating a number, giving the the time of ripening, he says, "Snow, better than I expected, and measured eight inches." Now, sir, I would like to inquire if there is not some mistake about this, or if Mr. PHILLIPS means to say that he actually raised peaches eight inches in diameter? because, if such is the case, there are a number of gentlemen here in Chicago who are ready to surrender the hat as soon as he will bring good evidence of the fact. Yours, *A Subscriber. Chicago, Sept. 21, 1848.*

ONONDAGA PEAR ON THE QUINCE STOCK.—In your last number of the Horticulturist, your correspondent from New Bedford gives it as his opinion that the *Onondaga* pear does not succeed on the quince stock. Last fall I received a specimen of that variety from ELWANGER & BARRY, on the quince—a nice, healthy-looking shoot, of one year's growth, perhaps 2½ feet high, with several side branches, which were taken off for cullings,

grafted and distributed to my friends, leaving quite a bare stock to start with this spring. It has now made a growth of twenty inches, with proportionate side branches, the centre shoot being one inch in circumference one inch from the top, with every appearance of good health, and gives satisfactory indication of making a stout pyramidal tree.

I would add that it was planted in the universal post-hole system of western farmers, with the addition of about a peck of leached ashes mixed with the soil round the roots. The *Diel* and *Louis Bonne of Jersey* have made shoots of 18 inches; *Duchesse d'Angouleme*, planted two years last spring, made about the same leading shoots as the *Onondago*, but larger latterly. *James E. Reed. Dalton, Ohio.*

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POMOLOGICAL CONVENTION AT BUFFALO (Continued.) The following decisions were made, relative to APPLES:—

The Yellow Harvest.—This name being adopted in preference to Early Harvest, as being more descriptive; worthy of general cultivation.

The Tart Bough.—Three weeks later than Yellow Harvest, which it resembles, and second rate in value from its lateness.

St. Lawrence.—Regarded by most as first rate, by others as not fully so, but to be admired for its size, beauty and vigorous growth.

Dyer, or Pomme Royal.—Known, also, in some parts of western New-York by the name of *Hollow Crown*; first rate.

Early Joe.—Regarded by all as of the highest quality when fresh from the tree. But it was stated by several that it would lose much of its flavor in a day or two, and is therefore unfitted for a distant market.

Early Strawberry.—First rate for its season.

Sweet Bough.—A first rate summer sweet apple.

Sine Qua Non.—First rate.

Toole's Indian Rarissime.—First rate for cooking, second rate for the table.

Minister.—Large and handsome; second rate.

Summer Rose.—First rate.

Summer Queen.—First rate for cooking, second for the table. A sweet apple, ripening the same time, and known as the *Augustine*, is sometimes erroneously called Summer Queen. The latter was decided to be third rate.

Duchess of Oldenburgh.—First rate for cooking, second for table.

Fameuse or Pomme de Neige.—Voted, but not unanimously, to be first rate, in northern regions especially.

Rhode Island Greening.—A first rate standard fruit, both for the table and cooking.

Red Astrachan.—Passed by. It should have been stated to the convention that this variety, although not a good table fruit, possesses great excellence as a very early cooking apple; being far superior in this respect to the Yellow Harvest.

Newtown Pippin.—Much discussion took place relative to this celebrated variety. Several delegates regarded it unworthy of cultivation in west-

ern New-York, on account of its defective fruit. Others regarded it of the highest value; and facts were stated showing that in instances where it had been invariably poor, its quality had been greatly improved by rich cultivation, and particularly by the application of ashes.

The *Yellow Newtown Pippin* was considered inferior in quality.

A half bushel of the *English Russet*, of Downing, was presented to the convention; they were of last year's growth, and were quite fresh, sound and agreeable. As the name English Russet was not considered sufficiently distinctive, it was concluded to call this variety the *Poughkeepsie Russet*, by which it is also known. It was decided to be first rate as a long keeper, and second rate in quality for the table.

Lowell Apple—known also as *Orange*, *Oswego Orange*, *Tallow Apple*, or *Tallow Pippin*, and at Cleveland as *Queen Anne*, and remarkable for its oily surface a few days after it is gathered. Though not fully first rate in quality, it was decided to be worthy of cultivation on account of its large size, fair and handsome appearance, and great productiveness.

Westfield Seek-no-further.—First rate.

Vandevere.—First rate.

Ribston Pippin.—Third rate, except in northern regions, where it proves fine.

The *Northern Spy* created much discussion. It was admitted to require good cultivation, and careful pruning, to develop its fine quality; that the Rhode Island Greening, and Roxbury Russet would flourish where the Spy would be nearly worthless, but that, with proper treatment, the latter was a fruit of high excellence.

Twenty Ounce.—First rate in size and beauty, second in quality.

Gravenstein.—First rate.

Esopus Spitzenburgh.—First rate.

Beauty of the West.—Third rate.

Fall Pippin.—First rate in every respect.

Late Strawberry.—First rate.

Swaar.—First rate in all respects.

Bellmont, Waxen, or Gate.—First rate.

Hawthorndean.—Unworthy of cultivation.

*Mother Apple.**—First rate.

Baldwin.—First rate in Massachusetts and New-York; unsuccessful in Ohio.

Jonathan.—First rate, taking all its qualities into consideration.

Porter.—First rate in all localities.

Rambo.—First rate, and succeeding equally well in the eastern and throughout the western states.

Hubbardston Nonsuch.—First rate; only equalled in richness by *Swaar*, *Esopus Spitzenburgh*, &c.

Pomme Grise.—First rate in the north and in Canada.

Gloria Mundi, or Monstrous Pippin.—Unworthy of cultivation.

Bullock's Pippin, or *American Golden Russett*, of Downing, the former name recommended by the convention—worthy of general cultivation.

Jersey Sweet.—First rate for its season.

Cornish Gilliflower.—Unworthy of cultivation.

* Printed erroneously "*Northern*," in the proceedings of the convention.

American Summer Pearmain.—First rate.
King of the Pippins.—Second rate.
Summer Hagloe.—Distinct from the Hagloe crab;
 first rate, but not unanimously. J. J. Thomas.
Macedon, 9th month.

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RAISING PEAR AND PLUM STOCKS.—*Friend Downing*: Having been rather unsuccessful in raising pear and plum stocks, on account of a blight or rust, which deprives them of their foliage soon after mid-summer, we tried the effect of bone dust on a small lot of seedling pears last season, both in the trench and for a top dressing. The young plants grew vigorously, and retained their foliage through the growing season.

Not being able to obtain bone dust the present season, we tried the following method with our plums and part of the pears: A gravelly and rather moist soil was trenched six or eight inches deep, and well manured with a compost of about two parts muck and one of barn manure,—the whole being well rotted and pulverised. The seeds having been exposed to the action of frost, were planted early in the spring. Those thus treated are now in a vigorous condition; having made twice as much growth as another lot manured with light yard manure and no muck. On examining the roots, we find those to which muck was applied, strong and fibrous, while the roots of the others are nearly as straight as the stock, and deficient in fibres, and the few remaining leaves rusty.

The plums, which were from the seeds of the horse plum, or Sweet Damson, have grown from three to three and a half feet. We consider these decidedly superior to other kinds for nursery stocks. They grow more rapidly, and withstand our rigorous winters much better than imported ones. Respectfully thine, S. N. T. *Vassalboro*, 8th month, 1848.

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NOTES ON STRAWBERRIES.—A. J. Downing, Esq. —Dear Sir: Permit me to correct two errors. (doubtless unintentionally committed;) one of which Mr. PRINCE labors under, in his article in your August number, on the "*Strawberry Culture and Selection of Varieties*." In speaking of the "*Taylor's Seedling*," he says, it "is another prairie variety." This is a mistake; it was originated from seed in this neighborhood by a Mr. TAYLOR, now of Baltimore. Of him I purchased the entire stock, and also named it. Finding it to be highly worthy a place in every good collection, I have not failed to recommend it, and also to send plants to my horticultural friends abroad; among them, I think Mr. PRINCE was not neglected.

The other error is in your September number, under the head of "*Domestic Notices*." Mr. F. R. ELLIOTT, in speaking of the proper spelling of the "Willey Strawberry," is probably correct in that; but, I apprehend, it is not so certain that "it is an old variety, originally brought from New-York," and I am sure it is not the "*Hudson of Longworth*," (which is the same I sent you.) The foliage of the two is quite distinct. That of the Hudson is a light yellowish green, with a rich velvet appearance on the upper side of the young leaves. The foliage of the Willey is a dark blue-

ish green, with none of the velvet of the Hudson, but quite glassy on the upper side of the young leaves. Both are deeply serrated, but less obtuse in the Willey. I feel equally confident that I never could have designed, in speaking of the colour, &c., of the fruit, to have conveyed the idea that I "could see no difference between them." The history of it, to me, is simply this: Several years since, my friend, Dr. KIRTLAND, of Cleveland, sent me some plants, saying that it was a new seedling, produced by Mrs. WILLEY, of that place. On fruiting it, I found it all the Dr. had said in its favor, and I did not hesitate to recommend it as worthy of cultivation. Of this, I have had no reason to change my mind. From a recent conversation on the subject with my friends, Dr. KIRTLAND, and Mr. ELLIOTT, I have reason to feel that they have either lost the Willey, or they have not the true Hudson.

In your remarks on the neck, which a part of the fruit assumed, of the Hudson I sent you, I presume you design to be understood, that this is its sporting habit, and not strictly a neck fruit. I noticed a greater tendency in my fruit, the last spring, to this sporting than I remember in any previous season. As a general thing, it is of rare occurrence with us. With much respect, I remain yours, A. H. Ernst. *Spring Garden, Cincinnati*, September 18th, 1848.

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NEW BEDFORD HORTICULTURAL SOCIETY.—The second annual exhibition of this Society, which came off at the City Hall, on the 27th, 28th, and 29th of September, was one of great interest. The show of fruits was especially fine—and with respect to the size and the excellence of the varieties shown, compared favorably with the great show at Boston. Many of the Pears were so fine as to awaken the admiration of the best judges present.

Among the principal contributors were JAMES ARNOLD, Esq., President of the Society, who showed a fine collection of foreign Grapes, including remarkably fine bunches of the *Victoria Hamburg*; JOHN HOWLAND, fine grapes and pears, including, among the latter, large and handsome specimens of the delicious variety—the Beurre Bosc; WM. T. COOK, a variety of choice pears and apples, among which were specimens of *Stevens' Genesee*, worthy of note; HENRY H. CRAPO, who showed the *Doyenne Boussouck*, a very handsome pear, which promises to be first rate, and 25 fine others of the choicest varieties, as well as many other fruits; CHARLES W. MORGAN, who brought forward very large and handsome specimens of the old *White Doyenne*, and fourteen other varieties, as well as grapes, apples, and quinces, and JOHN M. HOWLAND, who exhibited 14 kinds of pears. Among the leading exhibitors of fruits, were also, ANDREW ROBESON, WM. P. JENNEY, R. N. SWIFT, N. STETSON, JOSEPH GRINNELL, GEORGE RANDALL, SAMUEL RODMAN, R. MANNING, of Salem, and about 60 others.

The floral and vegetable departments were fully supplied with choice productions, which we would gladly enumerate did our space permit. We must

notice however, *Gaillardia Richardsoni*, from WM. R. RODMAN, and a beautiful collection of sea weeds, (114 specimens,) most admirably preserved.

The exhibition as a whole, was in the highest degree creditable to the skill of the horticulturists of New Bedford.

FINE PEACHES AND PLUMS.—We must do the *Orange County Agricultural Society*, which held its annual exhibition at Newburgh, in September last, the justice to say that although we have been present, since that time, at a number of Horticultural exhibitions, we have seen no display of *Peaches* and *Plums* equal to that made by this Society. The peaches grown by J. W. KNEVELS, Esq., of Fishkill Landing, measuring *nine and a quarter inches* in circumference, were unusually handsome, and showed most conclusively the advantage in a dry season of a *deep* soil. The finest specimens of Green Gage Plums that we have ever seen, were also exhibited by Capt. ROBINSON, the President of the Society, and other varieties of great excellence by T. W. CHRYSTIE, Esq., FRANCIS CRAWFORD, Esq., and others.

ERRATA.—We find two or three important errors in our last number. On page 162, for "*Hardy Galaude*," (the peach described by Messrs. PARSONS,) read "*Hardy Galande*;" and on p. 165, for "65 feet," read "22 feet;" "*ouriers*," on p. 153, should, of course, be *ouvriers*.

It may be well for us, however, to remark, that we place ourselves at all times at the indulgence of our kind readers for various errors of this kind, which occur from time to time in this journal. It must be remembered that we write at a distance from the press; and that, as we see no proof sheets, we have to trust to the tender mercies of a *proof-reader*, who is occasionally unmerciful. Our readers must either take our journal with its present *spirit*, begotten by the good influences of the Highland Garden, or do us the unkindness to wish us within the four walls of a city, so that they may have the *letter* always correct.

ANSWERS TO CORRESPONDENTS.

QUINCES.—*Southside*. (Staten Island.) We prefer comparatively *dry*, to moist soil, for the quince. Trim this tree as little as possible, and feed it highly with manure, if you wish large and fine fruit in abundance. *Johnson*—(Baltimore.) We have examined the quince grown by ELLWANGER, BARRY & ROWE, of Rochester, N. Y., and think it a distinct variety, exceedingly well adapted for stocks. It is, apparently, a variety of the apple quince, and unites to free growth, as a stock, great facility for propagation,—growing almost as readily from cuttings as the currant. The apple quince is the sort in general use, and is an excellent stock. *G. Pomeroy*—(Plymouth.) The apple quince has a regular *oval* leaf, which does not hang down and is not *wavy*. We hope

to give the list of pears on quince stocks before long.

SELECT LISTS OF FRUITS.—*A. Moore*. (North Anson, Me.) The best *apples* for your northern climate are the following:—Early Harvest, Large Yellow Bough, Williams' Favorite, Gravenstein, Porter, Golden Sweet, R. I. Greening, Ribston Pippin, Yellow Bellefleur, Fameuse, Baldwin, Danvers' Sweet, Roxbury Russett; of *pears*—Dearborn's Seedling, Flemish Beauty, Fulton, Heathcot, Stevens' Genesee, McLaughlin, Beurre d'Aremberg, Vicar of Winkfield; of *plums*—Bleecker's Gage, Jefferson, Lombard, Red Gage, Green Gage, Imperial Gage. Few *peaches* are, perhaps, hardy enough. We recommend, for trial, Grosse Mignonne and Cooledge's Favorite; *Mr. Goodale* of Saco, Maine, has a variety called *McIntyre's Seedling*, also worthy of trial; *cherries*—Mayduke, Downer's Late, Black Eagle. The *Clinton* grape, which appears to be rather earlier and harder than the Isabella, may be had of the nurserymen at Rochester, or, indeed, at most of the nurseries in this state. The Scuppernong grapes are of no value at the north. *A Constant Reader*—(Milwaukee.) We cannot do better than to recommend to you the list, (see previous page,) of *fruits for general cultivation*, adopted by the Congress of Fruit-Growers.

WINTER FLOWERS.—*A Lady*. (New-York.) A few of the best Hyacinths, for blooming in pots or glasses, are the following:—*white*—Nanette, La Candeur, Penelope, Grande Vainqueur; *pink*—Princesse d'Esterhazy, Bouquet Tendre, Il Pastor Fido, Groot Voorst; *blue*—L'ami de Coeur, Passetout, Lord Wellington, Pourpre Superb. Hyacinths, in glasses, which do not start freely, should have a little *tepid* water every other day. The violet for winter blooming is the *Neapolitan*; you will find hundreds of them at the florists, now full of buds. Azaleas and Camellias will give you abundant bouquets from now until May.

PROTECTING RASPBERRIES.—*T. G. S.* (Albany.) Bend down the tops of your Antwerp raspberries, and cover them slightly with earth. It protects them perfectly, and *insures* a crop the next season,—while, if you leave them exposed, they will very probably be killed, or so much enfeebled as to bear only half a crop. You will also find it a great advantage, in your heavy soil, to cover your raspberry beds with a couple of inches of straw or litter, at the approach of winter.

PEAR ORCHARDS.—*Southside*. The deeper you can make your land the better, for pears; therefore, trenching, or trench-ploughing, is better than subsoiling. We prefer mixing the manure with the *lower* soil, as much as possible, at the time of trenching. The most *profitable* way of training dwarf pears is as *pyramids*, not as *espaliers*, or *en quenouille*. The following are *profitable* market pears: Bartlett, Buffum, Flemish Beauty, Louise Bonne de Jersey, (on quince,) Vi-

car of Winkfield, Lawrence, Beurre d'Aremberg. The *Columbia* is a fine fruit, but it is very liable to be blown off by high winds.

RAPID GROWING TREES.—*Hortus*. (Syracuse, N. Y.) The two very best rapid growing trees are the Dutch Elm and the Silver Maple; both to be had in the nurseries. They are greatly superior to the Ailanthus, and the Silver Poplar (able,) because they grow as fast, and do not *sucker* so intolerably. The Silver Maple is doubly as rapid in its growth as the Sugar Maple. Norway Spruce is the best evergreen for your purpose; it often makes annual shoots five feet long in a good *deep* soil.

INSECTS.—*F. Weston*. (Sandy Hill, N. Y.) We have sent the branch to Professor HARRIS, and will give you his opinion (which is worth more than ours,) when we receive it.

FLOWER BORDERS.—*An Amateur*. (Hartford.) The cause of your failure, "for the last few years," is the worn out condition of the soil in your borders. Take up all the smaller plants, carry away all the soil for a foot deep, at least, and fill up again with new soil, well mixed with manure. Some good turfy loam, from an old meadow that has not been cultivated for years, is the best. After replacing with this, trench the whole a couple of spades deep, and you will find, the next season, every plant growing and blooming as vigorously as ever.

SEEDS.—*G. Y.* (Mobile.) We will be greatly obliged for seeds of the novel *Gordoquia*, you describe. *I. B. J.*—(Wheeling.) If it is not convenient to plant your magnolia, and other rare tree seeds this autumn, sow them thickly in boxes of sand, and place them in the cellar till spring, when you can re-sow them in the open air; or, what is better, plant them thinly in the boxes, and keep the young plants in the same the first season, the boxes placed, in summer, in a partially shaded aspect, and watered every day. *W. L. C.*—Plant the acorns of the Overcup Oak at any time before winter. If you have to keep them till spring, put them in a box, and mix them with soil.

HEDGES.—*W. L. Coe*. (Scottsburgh, N. Y.) The Hemlock, with care and patience, makes an exquisite hedge. If you wish to propagate it from seeds, the cones must be gathered in the autumn; and if placed on a sieve, before a fire, they will open and the seeds will drop out. They should then be sown immediately. A deep, mellow, and rather sandy border must be made in a *shady* situation. Sow the seeds upon the top of the well pulverized soil, and cover them very lightly with some fine sand, or leaf mould, from the woods. Afterwards, cover the surface of the bed with branches of evergreens till spring, when they should be removed, and the seeds will vegetate. The only certain mode of getting evergreens to vegetate, is to plant them in large shallow boxes,

about six inches deep. After the seeds are sown in these, (as just described,) place the boxes in a cold-frame, i. e., a mere empty frame, covered with glass, and placed on the north side of a fence or building. Here they may remain till spring, when the lights should be taken off. The boxes should still be kept in the frames all this season, and watered very frequently, or as often as they appear dry. In this way, nearly every seed will vegetate, and the plants will be fit to transplant into the nursery-rows the ensuing spring. *An Inquirer*.—(Oswego.) The Osage Orange will, no doubt, be perfectly hardy with you, as Lake Ontario renders your climate mild. Wherever the peach tree ripens good crops, this excellent hedge plant may be used. The Buckthorn forms quite a strong wall, after having been *sheared* several years. *Staten Island*.—Buckthorn and Osage Orange will grow together; but we doubt if an evergreen would thrive well, intermingled with either. It is better, in mixing plants, for a hedge to *alternate* the plants, rather than make one row of each.

GRAPES.—*J. D. Legaré*. (Aiken, S. C.) The Royal Muscadine, among foreign grapes, and the Isabella, among natives, are *least* liable to rot or mildew. We note your experience with *ashes* to prevent rot. But you must not decide against it, with one year's trial. It has been found effectual here, at the north, when used along with *gypsum*.

CATALOGUES.—*E. Haren*, Esq., secretary of the St. Louis Horticultural Society, desires nurserymen to forward copies of their catalogues to him, for the use of the society.

CHERRIES.—*Milwaukie*. You say the cherry tree suffers from gum, and from the effects of the sun in early summer. Allow your trees to form low bushy heads, (as near the surface of the ground as may be,) prune them scarcely at all, and manure with wood ashes.

STOCKS.—*C. H.* (Vermont.) We are not aware that *stocks* of the *Mahaleb* or St. Lucie cherry, are to be had in any quantity in this country. They may be had of any respectable French or Belgian nurseryman, at moderate prices. In the Catalogue of VAN HOUTTE, of Ghent, we notice them offered as follows: Mahaleb Cherry Stocks, 30 francs (about \$6) per 1000; Paradise Apple Stocks, 30 francs; Quince do., 33 francs. Send the amount of the bill you wish to order to SHEPARD, 143 Maiden-Lane, N. Y., or some other responsible commission agent, and he will import them for you.

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* * * Correspondents who are *subscribers*, will hereafter find replies to any questions on subjects within the scope of this journal, in this department, (unless otherwise requested)—and all queries put in a *brief shape*, and sent to us *free of postage*, shall receive attention. ED.

MASSACHUSETTS HORTICULTURAL SOCIETY.

BUSINESS MEETINGS.

Sept. 16—The President, M. P. WILDER, Esq., in the chair. A delegation to attend the annual exhibition of the Pennsylvania Horticultural Society, was appointed, consisting of Messrs. Cheever Newhall, Joseph Breck, and E. M. Richards.

ROBERT MANNING, was elected a Life Member, and his fee remitted him, on account of his valuable services as a pomologist.

Sept. 23—The President in the chair. A letter was read by the President, from JOSIAH BRADLEE, Esq., enclosing his check for \$500 to be added to his former donation of a like amount, as a permanent fund for premiums on Fruits and Flowers.

A letter was also read from SAMUEL APPLETON, Esq., accompanied with his check of \$200, to be appropriated for the purchase of moral and scientific books for the Society's Library.

The thanks of the Society were voted to Messrs. Bradlee and Appleton, to be communicated by the Corresponding Secretary.

The thanks of the Society were also voted to the various committees who had charge of the annual exhibition and festival—to the Chief Marshal and his effective aids—to the committees to provide accommodations for the various committees during the exhibition—and to the ladies and gentlemen, who kindly favored the festival with music and song.

Josiah Lovett 2d, David Haggerston and E. M. Richards, were appointed a committee to nominate a list of officers for the ensuing year, to be reported at next meeting.

Gustus Everts, Watertown, and Wm. P. Gibbs, Lexington, were elected members.

Sept. 30—The President in the chair. The committee on nominations reported that they had unanimously agreed on a ticket, but since coming together to-day, they had learned that the gentleman (Hon. B. V. FRENCH,) who had received the nomination for President, would not serve in that capacity if elected.

The Hon. Mr. French, Vice President, being present, stated that he should decline the office if elected, and that, though he had been of the Society from its foundation, and with willing heart and hand, had been prompt in aid of the cause of Horticulture, and the Society's interests, still he was not ambitious of its honors, but should continue his efforts for the advancement of Horticulture as heretofore. Mr. F. expressed a warm attachment for its members, who had so long gone hand and hand with him, in a cause for which he felt so deep an interest, and they might rely on his readiness to serve them, as if occupying the highest honor in their gift.

It was therefore voted that the committee of nominations have further time, and that they be requested to have their list placed on the Society's table as early as Thursday next.

Oct. 7—The annual meeting was held this day—the President in the chair. The Society proceeded to the election of officers to serve for the year 1849. Messrs. Ebenezer Wight and John Fisk Allen, being appointed tellers.

The polls were kept open for half an hour, after which the tellers reported that the list of officers recommended by the nominating committee, had been elected, as follows:

President—Samuel Walker.

Vice Presidents—Benjamin V. French, Cheever Newhall, Edward M. Richards, Joseph S. Cabot.

Treasurer—F. W. Macondry.

Corresponding Secretary—Eben Wight.

Recording Secretary—E. C. R. Walker.

Professor of Botany and Vegetable Physiology—John Lewis Russel, A. M.

Professor of Entomology—T. W. Harris, M. D.

Professor of Horticultural Chemistry—E. N. Horsford.

Committee on Fruits—F. W. Macondry, Chairman, P. B. Hovey, Jr., J. S. Cabot, Eben Wight, Josiah Lovett, Joseph Breck, Robert Manning.

Committee on Plants and Flowers—David Haggerston, Ch'n, Alex. McLellan, Wm. B. Richards, E. A. Story, John Cadness, Lyman Winship, E. C. R. Walker.

Committee on Vegetables—A. D. Williams, Jr., Ch'n, Wm. B. Kingsbury, James Nugent, Azell Bowditch, Aaron D. Weld, S. W. Cole, George Pierce.

Committee on Library—Charles M. Hovey, Ch'n, Henry W. Dutton, R. M. Copeland, Joseph Breck, Wm. B. Richards.

Committee on Synonyms of Fruit—M. P. Wilder, Ch'n, C. M. Hovey, J. S. Cabot, Robert Manning, Ch'n of the Fruit Committee.

Executive Committee—The President, Chairman, the Treasurer, M. P. Wilder, E. M. Richards, Otis Johnson.

Committee for establishing Premiums—The Ch'n of Committee on Fruits, Chairman, the Chairman of Committee on Flowers, the Chairman of Committee on Vegetables, C. M. Hovey, Josiah Lovett, 2d.

Finance Committee—M. P. Wilder, Chairman, Josiah Stickney, Otis Johnson.

Committee on Publication—Eben Wight, Chairman, C. K. Dillaway, Josiah Lovett, 2d, the Recording Secretary, and the Chairmen of the Committees on Fruits, Flowers and Vegetables.

Cheever Newhall, Esq., as Chairman of the Committee on Medals, submitted a Report, accompanied with specimens in Bronze, from the die of the Appleton Gold Medal, and it was voted, that the Report of the Committee on Medals be accepted, and one of the Bronze Medals presented to each of the Committee and the President of the Society.

Wm. Hill, South Boston, and Charles F. Hendee, Roxbury, were elected members.

Oct. 24—The President in the chair. A letter was read from EDMUND BARTLETT, Esq., accompanied with seeds of a Tree from Vancouver's Island, and it was voted, that the thanks of the Society be presented to Mr. Bartlett, and the seed placed in the hands of the Flower Committee, to dispose of to such gentlemen as may desire to cultivate them.

The following gentlemen were elected members of the Society:

Samuel A. Appleton, Jona. Ellis, Francis Boyd, and Henry L. Daggett, Boston; and George Peirce, West Cambridge.

E. C. R. WALKER,

Recording Sec'y.

WEEKLY EXHIBITION.

We have the reports of the weekly exhibition, of Sept. 9th, the details of which are necessarily omitted.

Among the novelties, we notice the following:

Mr. S. Walker exhibited a beautiful pure white seedling Phlox, dense headed—also a seedling from *P. tardiflora*—an improvement upon it.

Mr. Wilder, the President, exhibited the following new Pears—*Triomphe de Gand*, *Beurre Goubalt*, *Blanquet Anasterque*, (decidly poor,) *Souvenir d'Ete*, (very fine,) *Poire d'Eselle*, (poor,) *Colmar d'Ete*, Dunmore, (good).

These pears were tested in committee with a view to dissemination; and, with the exception of one or two varieties, did not leave a very favorable impression.

THE

GORTICULTURIST,

AND

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VOL. III.

DECEMBER, 1848.

No. 6.

DECEMBER, here in the north, is certainly a cold month. Yes, one does not look for primroses under the hedges, nor gather violets in the valleys, often, at this season. One must be content to enjoy a bright sky over head, and a frosty walk under foot; one must find pleasure in the anatomy of trees, and the grand outline of hills and mountains half covered with snow. And then, to be sure, there are the *evergreens*. What a pleasant thing it is to see how bravely they stand their ground, and bid defiance even to zero; especially those two fine old veterans, the *Hemlock* and the *White Pine*. They, indeed, smile defiance at all the attacks of the Ice King. It is not easy to make a winter landscape dull or gloomy where they stand, ready as they are at all times with such a sturdy look of wholesome content in every bough.

That must be an insipid climate, depend upon it, where there is "summer all the year round." In an ideal point of view,—that is, for angels and "beatitudes"—it is, nay, it must be, quite perfect. Their sensations never wear out. But to us, poor mortals, compounded as we are of such a moiety of clay, and alas, too many of us full of inconstancy,—always demanding variety—always looking for a change—weary-

ing, as the angels do not, of things which ought to satisfy any reasonable creature forever; no, even perpetual summer will not do for us. Winter, keen and frosty winter, comes to brace up our languid nerves. It acts like a long night's sleep, after a day full of exciting events. Spring comes back again to us like a positively new miracle! To watch all these black and leafless trees suddenly become draped with green again, to see the ice-bound and snow-clad earth, now so dead and cold, absolutely bud and grow warm with new life,—that, certainly, is a joy which never animates the soul of our fellow beings of the equator.

"But the winter, the long winter—without verdure—without foliage—without flowers—all so bleak and barren." Softly, warm weather friend, open this little glazed door, out of the parlor, even now, while the icicles hang from the eaves, and what do you see? Truly a cheering and enlivening prospect, we think; a little miniature tropical scene, separated from the outer frost-world only by a few panes of glass, and yet as gay and blooming as the valley of Cashmere in June. What can be purer than these pure, spotless double white,—what richer than these rich, parti-coloured Camellias? What more delicate than

these Heaths, with their little fairy-like bells? What more fresh and airy than these Azaleas? What more delicious than these Daphnes, and Neapolitan Violets? Why, one can spend an hour here, every day, in studying these curious and beautiful strangers—belles of other climes—that turn winter into summer, to repay us for a little warmth and shelter. Is there not something exciting and gratifying in this little spectacle of our triumph of art over nature? this holding out a little garden of the most delicate plants in the very face of winter, stern as he is, and bidding him defiance to his teeth? Truly yes; and therefore, to one who has enough of vegetable sympathy in his nature to love flowers with all his or her heart—to love them enough to watch over them, to care for all their wants, and to feel an absolute thrill of joy as the first delicate bit of colour mounts into the cheek of every blushing bud as it is about to burst open,—to such of our readers, we say, a GREEN-HOUSE is a great comfort and consolation!

There are many of our readers who enjoy the luxury of green-houses, hot-houses, and conservatories,—large, beautifully constructed, heated with hot water pipes, paved with marble, and filled with every rare and beautiful exotic worth having, from the bird-like air plants of Guiana to the jewel-like Fuchsias of Mexico. They have taste, and much “money in their purses.” They want no advice from us; they have only to say “let us have green-houses,” and they have them.

But we have also other readers, many thousands of them, who have quite as much natural taste, and not an hundredth part as much of the “needful” with which to gratify it. Yes, many, who look upon a green-house as a sort of crystal palace, which it requires a great deal of skill to construct, and

untold wealth to pay for and keep in order. The little conversation that we hold to day must be considered as addressed to this latter class; and we don't propose to show even them, how to build a green-house for nothing,—but how it may be built cheaply, and so simply that it is not necessary to send for the architect of Trinity Church to give them a plan for its construction.

The idea that comes straightway into one's head, when a green-house is mentioned, is something with a half roof stuck against a wall, and glazed all over,—what gardeners call a lean-to or shed-roofed green-house. This is a very good form where economy alone is to be thought of; but not in the least will it please the eye of taste. We dislike it, because there is something incomplete about it; it is, in fact, only half a green-house.

We must have, then, the idea, in a complete form, by having the whole roof—what in garden architecture is called a “span-roof”—which, indeed, is nothing more than the common form of the roof of a house, sloping both ways from the ridge pole to the eaves.

A green-house may be of any size, from ten to as many hundred feet; but let us now, for the sake of having something definite before us, choose to plan one 15 by 20 feet. We will suppose it attached to a cottage in the country, extending out 20 feet, either on the south, or the east, or the west side; for, though the south is the best aspect, it will do in this bright and sunny climate very well in either of the others, provided it is fully exposed to the sun, and not concealed by trees at the sunny time of day.

Taking *fig. 32* as the ground plan, you will see that by cutting down the window in the parlor, so as to make a glazed door of it, you have the opening precisely where

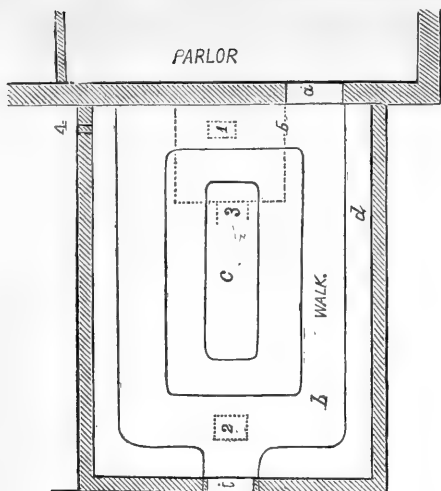


Fig. 32.—Plan of a small Green-House.

you want it for convenience, and exactly where there will be a fine vista down the walk as you sit in the parlor. Now, by having this house a little wider than usual, with an open roof, our plants have the light on all sides; consequently, they are never *drawn*. Besides this, instead of a single walk down the front of the house, at the end of which you are forced to wheel about, like a grenadier, and return; you have the agreeable variety of making the entire circuit of the house, reaching the same spot again, with something new before you at every step. This walk is $2\frac{1}{2}$ feet wide. The stage for the tall plants is a parallelogram, in the middle of the house, *c*, 7 feet wide; the shelf, which borders the margin of the house, *d*, is about 18 inches wide. This will hold all the small pots, the more delicate growing plants, the winter flowering bulbs, and all those little favorites which of themselves like best to be near the light, and which one likes to have near the eye. It is quite incredible what a number of dozen of small plants this single shelf, running nearly all round, will hold.

Now let us take a glance at the plan of

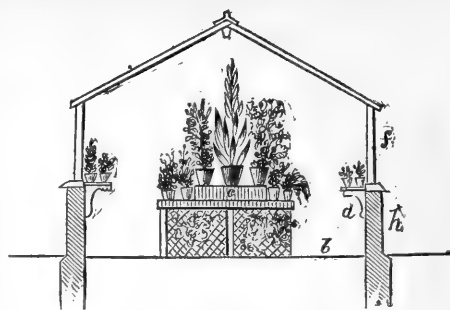


Fig. 33.—Section of the Same.

the section of the green-house, *fig. 33*, which may be supposed to be a *slice* down through the end of it. The sides of the house are 8 feet high. They consist of a row of sashes, (*f*) $3\frac{1}{2}$ feet high, placed just below the plate that supports the roof, and a wall, *h*, on which these sashes stand. This may be a wall of brick or stone; (if of the former, 8 inches thick is sufficient;) or it may, when it is to be attached to a wooden dwelling, be built of wood—good cedar posts being set as supports $3\frac{1}{2}$ feet deep, and lined with weather boarding on each side, leaving a space of 12 inches wide, to be filled very compactly with charcoal-dust, or dry tan.

At the farther end of the house is a door, *i*.

The roof may rise in the middle so as to be from 12 to 15 feet high; (in our plan, it is shown 12 feet.) It is wholly glazed,—the sashes on either side *sliding* down in the rafters, so as to admit air when necessary. The rafters themselves to be placed about 4 feet apart. Is it not a neat little green-house—this structure that we have conjured up before you? It is particularly light and airy; and do you not observe that the great charm about it, is that every plant is within reach—always inviting attention, always ready to be enjoyed? Truly, it is not like those tall houses, with stages

running up like stairs, entirely out of the reach of one's nose, arms or fingers. Do you not see, also, that you can very well water and take care of every plant yourself, if you are really fond of such things? Very well; now let us look a little into the way in which we are to keep this little place of pleasure always warm and genial for the plants themselves.

In the first place, we must inform our reader that we are not to have either a furnace with brick flues, or a boiler with hot water pipes. They are both excellent things; but we must have, at present, something simpler and more economical.

Everybody, in the northern states, very well knows what an *air-tight stove* is; a most complete and capital little machine, whether for wood or coal; most easily managed, and giving us almost the whole possible amount of caloric to be got out of hickory or anthracite. Now we mean to heat our little green-house with an air-tight stove, of good size; and we mean to heat it, too, in the latest and most approved system—nothing less than what the English call *Polmaise*—by which we are able to warm every part of the house alike; by which we shall be able to create a continual circulation of the warm air from one end of it, quite over the plants, to the other; and which, no doubt, they will mistake for a West India current of air every evening.

In order to bring this about, we must have an *air-chamber*. This also must be below the level of the green-house floor. It is not important under what part it is placed; it may be built wherever it is most convenient. In our plan, (*fig. 32*), as there is a cellar under the parlor, we will put it next the cellar wall, so that there may be a door to enter it from this cellar. This air-chamber must be built of brick, say about 7 or 8 feet square, (as represented by the

dotted lines around *b*.) The wall of this air-chamber should be two bricks thick at the sides and one brick at the ends, and all smoothly plastered on the inside. The top should be covered with large flagging stones; and upon the top of these, a course of bricks should be laid, which will form part of the floor of the walk in the green-house above. Or, if flagging is not to be had, then cover the whole with a low arch of brick work.

In this air-chamber we will place our air-tight stove, the smoke pipe of which must be brought back into the cellar again, so as to be carried into one of the chimney flues of the house. There must be a large sheet iron or cast iron door to the air-chamber, to enable us to feed the fire in the stove; and, in the top or covering of the air-chamber, directly in the middle of the walk, (at 1,) must be an opening 18 inches in diameter, covered with a grating, or register. Through this the hot air will rise into the house.

Now, both that we may heat the house easily and quickly, and also that we may have that continual *circulation* of air which is so wholesome for the plants, we must also have what is called a "*cold-air drain*;" it must lead from that end of the house farthest from the hot-air chamber, and therefore the coldest end, directly to the bottom of the air-chamber itself. We will put the mouth of this drain in the middle of the walk near the door, at 2, with a grating over it also. This drain shall be simply a long box, made of boards; and we will have it 1 foot by 2 feet, inside. From the mouth, 2, it shall lead along, in a straight line, just below the level of the floor, to B, where it descends so as to enter on a level with the floor of the hot-air chamber. We will also have a smaller box, or drain, for *fresh air*, leading from the bottom of

the air-chamber to the open air through the foundation wall, at 4, to supply the house with fresh air. This air-pipe should be six inches in diameter, and there should be a *slide* in it to enable us to shut it up, whenever the weather is too cold to admit of its being open, without lowering the temperature of the house too much.

Now let us suppose all is ready, and that a fire is lighted in our air-tight stove. The air in the air-chamber becoming heated, it rises rapidly, and passes into the green-house, through the grated opening at 1. Very quickly, then, in order to supply the deficiency caused in the air-chamber, the air rushes through the cold-air drain. This makes a current from the coolest part of the house, at 2, towards the air-chamber; and, to make good again the lost air carried off from that end of the house, the warm stream, which rises through the opening at 1, immediately flows over the tops of the plants towards the opposite end of the house, and, as it becomes cold again, descends and enters the mouth of the cold-air drain, at 2. By taking advantage of this simple and beautiful principle,—that is to say, the *rising* of warm air, we are able in this way to heat every part of the house alike, and have a constant bland zephyr passing over the plants.*

It is not easy to find anything simpler, or more easily managed, than this way of heating a small green-house. In this latitude, a couple of cords of wood, or a couple of tons of anthracite, will be sufficient for the whole winter; for, it must be remembered, that no matter how cold the day, the moment the sun shines, there is not the slight-

est need of a fire; the temperature will then immediately begin to rise. Usually, after bright days, which are abundant in our coldest winter months, we shall not need to light a fire till one, two, or sometimes three hours after sun-set; and if our air-tight is one of good size, and constructed as it should be, so as to maintain a good fire for a long time, our last replenishing in the evening need not usually be later than 10 o'clock; but we must, in this case, give a full supply of fuel for the night's consumption.

Every sensible person will, of course, use light outside shutters, for the roof and side-glass of such a house as this. We slide them on at sunset, and take them off at sunrise; and by this means, we not only save one-third of our fuel, but keep up a pleasant green-house temperature without cold draughts at night. It is worth while to remember, too, that in glazing the roof, the most useful possible size for the glass is 4-by-6 inches, or, at the largest, 6-by-8 inches. The former answers the purpose perfectly, and is not only much less costly than large glass, but is also far less expensive to keep in repair; neither hail nor frost breaking the small panes, as they do the large ones.

As to the minor details, we will have a small cistern under the floor, into which the water from the roof can be conveyed for watering the plants. Beneath the centre stage, (which may be partly concealed with lattice work,) we may keep our dahlia roots, and a dozen other sorts of half hardy plants for the summer border, now dormant, and snugly packed quite out of sight.

We did intend, when we sat down, to give our novices a great deal of exceedingly valuable advice about the sorts of plants that they ought to cultivate in this

* Our readers, to whom this mode of heating is not quite clear, will please turn back to a detailed plan of the Polmaise mode, page 124, and also examine the plan of "A Subscriber," in this number.

We should add, that when a *coal* air-tight stove is used, there should be a water pan suspended over it. For a wood air-tight, it is not necessary.

glazed flower garden. But we see that we are getting beyond the limits of a leader, and must not, therefore, weary those of our subscribers, who take no more interest in geraniums than we do in Irish landlords, with too long a parley on exotics.

We must have space enough, however, for a word or two more to beginners. Let them take our word for it,—if they prefer an abundance of beautiful flowers to a *pot-pourri*, of every imaginable species that can be grown under glass, they had better confine themselves to a few really worthy and respectable genera. If they only want winter blooming plants, then let

them take *Camellias* and *Chinese Azaleas*, as the ground work of their collection, filling in the interstices with daphnes, heaths, sweet scented violets, and choice bulbs. For the spring, rely on everblooming roses,* and geraniums. If they also wish to have the green-house gay in summer, they must shade it, (or wash the under side of the roof-glass with whiting,) and grow *Fuchsias* and *Achimenes*. In this way, they will never be without flowers in abundance, while their neighbors, who collect every new thing to be heard of under the sun, will have more tall stalks and meagre foliage, than bright blossoms and odorous bouquets for their trouble.

THE KIND OF INFORMATION NOW WANTED IN POMOLOGY.

BY A YOUNG PLANTER, NEW-YORK.

THERE are many varieties of plants that are cultivated with very unsatisfactory results, in localities in which others, of the same species, flourish with at least their ordinary luxuriance. It has been found that, by certain operations upon the soil, these varieties may be made to thrive in many places that have proved naturally unpropitious to them. A Frenchman will find material for a capital *ragout*, where an Englishman would starve; and a soil from which the Bartlett pear will assimilate material for an abundant crop of fruit, will be death to the Doyenné. On another soil, both may be equally well accommodated; and on yet another, the Bartlett again shall fail.

Owing to the eminent talent devoted to the improvement of the pear, by men whose attainments should give them a name among the philosophers of the age, more, perhaps, is known of the peculiar habits of separate

varieties of this fruit, than of those of any other. It is hardly possible for any one person to command all the circumstances which may be supposed to affect a number of trees, each with a peculiar influence; but every one may observe some unusual effects, as the result of his own culture of particular varieties, and may eventually trace them to constant causes.

It is extremely desirable that such discoveries, or observations and conjectures, which may be compared with those of others, and that suggest investigations at other points that may lead to discoveries, should be made public.

At the recent pomological convention in New-York, the *Glout Morceau Pear*, being under discussion, gentlemen from six different localities followed each other in de-

* Nothing is more satisfactory than those fine Noisette roses, the *Lamarque* and *Cloth of Gold*, planted in an inside border, and trained up under the rafters of the green-house. In this way, they grow to great size, and give a profusion of roses.

claring that it had proved with them every way unexceptionable. Then another arose, with whom it had not done as well. The former had raised it, I believe, invariably on rather stiff, loamy soils, as at Salem, Boston, Worcester and Hartford. The latter, on the sandy soil (probably,) of New-Jersey. Yet, it was to be remarked, that there were some pears whose merits were questioned, that had succeeded perfectly with him; even better, perhaps, than in those quarters from which the Glout Morceau was voted perfect. We should not draw confident inferences from these facts; but they are valuable, as starting points, from which the results of further observation may lead to an authentic list of varieties, particularly adapted to culture on sandy soils, or the contrary. In the discussion on the Beurré d'Arenberg, another straw was lifted, which might prove a hint to rather complicated, yet important inquiries; and, as a matter of information, is worth "making a note of." This pear was spoken of, as unequalled as a standard tree, *both* at Boston and at Salem; as a dwarf, however, it entirely failed to give satisfaction at Boston, yet succeeding at Salem. Very curious cases, of similar character, are frequently observed. Is it a peculiarity of soil, or of climate, or of cultivation, that occasions this difference? Until we are informed, every man must take the chance for failure in trying it on his own ground, or must substitute for it, if his space is limited, some other variety, as the *Louise Bonne de Jersey*, or the Glout Morceau, which are known to be more invariably good on quince stocks.

From one of the most valuable communications, presented to the convention, containing the observations of Mr. MANNICE, on several fruits, growing on the south shore of Long-Island, it appeared that the Napoleon Pear proved very poor in that situation.

In the garden of my neighbor, Dr. CYRUS PERKINS, this pear bears most abundant crops of fruit, which, for its peculiar qualities, was never surpassed. Both situations are exposed to the sea, with similar aspects, and within twenty miles of each other. The difference is, probably, in the nature of the soil; one being sandy, the other clayey loam.

The fruit committee of the convention very judiciously added to their list of first rate fruits, a few of each sort, which could be recommended as such only for *certain localities*. I was sorry to see this objected to by a few members. The studied results of the labors of the committee room, should not be rashly attacked. It seems to me, that in this case, the exception taken was indiscreet, and the arguments proved more than they were intended to. It was said, for example, that the *Yellow Bellefleur Apple* had been tasted in perfection from a tree in the garden of the late Mr. BULL, of Hartford. This was evidence sufficient, that it was equally *first rate*, and well adapted to general cultivation there, as anywhere; although the delegates from the Hartford society informed the convention that, under ordinary circumstances, it did *not* flourish there as well as the other varieties reported. But the tree referred to grew in garden soil, in the hands of a skilful and pains-taking man, in whose fairy land it might almost be said, nothing ever appeared that was not soon transformed, under the magic of his culture, into an object of beauty and value. Do not the facts rather prove the correctness of the committee's information? It seems to me, their hint was just what is wanted. Was it their business to ascertain what fruit might be made "*first rate*?" I never saw finer tropical fruit (though "I have wandered to the farthest Ind,") than our lamented friend

has shown me, almost within the shade of that same Bellefleur, there growing, by the same admirable skill and care that perfected the apples, so highly and so justly lauded to the convention.

Each of the exceptions made by the committee was, in its turn, sustained by the evidence of those present from this or that section; and it would not have been difficult to ascertain from them the particular localities, or the characters of the soils which are unsuited to the reserved fruits. Not a member of the convention professed to have eaten a first rate *Newtown Pippin*, which had been raised in New-England;

and I do not believe any one, that heard the discussion of the *Louise Bonne de Jersey*, would choose to plant that pear, except on quince stocks.

Such facts may accumulate, that a future convention shall be able to furnish the public with a classification of fruit trees, on the basis of their congenial soils; and, for this most desirable end, is it too much to ask all fruit growers to observe the peculiarities incident to their various localities, and to furnish statements of them through our periodicals, for the consideration of the horticultural world? A YOUNG PLANTER.

New-York, Nov. 8, 1848.

FAMILIAR BOTANY.

BY DR. WM. W. VALK, FLUSHING, L. I.

TO MANY of the readers of the Horticulturist, we hope the present article will prove both useful and interesting. It is almost wholly of an eclectic character; our materials being culled from different sources, and arranged with particular reference to the facility with which the subject may be readily and best understood, by those who are not yet acquainted with the rudimental knowledge of the science, as systematised and adopted by the immortal Linnæus.

We are far from contending that there is any *necessity* whatever for the studying of *botany*, in order to make a man a practical gardener. He may be quite equal to the task of laying out and cultivating a garden in perfection, and fully competent to the exercise of any degree of skill in so doing, without having made botany "the stepping stone" thereto. But yet, we are bound to admit, that the study of it is delightful, and that all should learn what they can of it,

whenever the opportunity is presented to them.

To render science useful, its principles should be consistent with nature and common sense; and there should appear, among its teachers, nothing like presumption or irreverence. Therefore, we can have nothing to do with those ridiculous theories, which appear to us contemptible, because we have been taught, and wish to have our children taught, that God's works are *always perfect*.

The classes and orders of Linnæus may be learned with advantage by every lover of plants; because this kind of knowledge will increase their enjoyment, and lead them into a desire to know more. Our great object is to render these lessons acceptable to the most humble aspirant. There is no reason why the *useful* portions of botany should not be studied by everybody who feels interested in gardening opera-

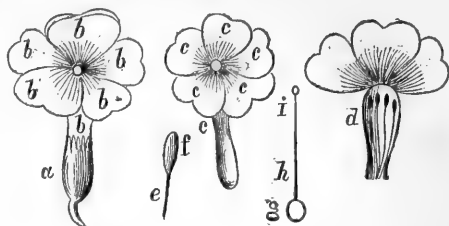
tions. We shall, then, endeavor to simplify the early lessons, and thus clear the way for those who know nothing about botany, so that they may be enabled to classify plants for the better understanding of their nature, and the avoidance of such as are poisonous.

Linnæus divided plants into *twenty-four classes*, and arranged them *according to the construction of the flower*. What is a flower? It may appear singular that a question, apparently so simple, should be asked; but there are *two* answers to it, as diametrically opposite as they can be, and both *cannot* be right. By an author of no little celebrity in horticulture, we are told that a flower "*is in reality a stunted branch; the growth of which is checked, and its power of elongation destroyed.*" We don't believe a word of it; for, to our conception, there is nothing in nature more *perfect* than a flower. It is well to talk of the spread of learning, and the advancement of science; but if by this, we are to understand a blind following of teachers who outrage truth, better that we leave it alone.

The second answer we like better:—a flower "*is a perfect specimen of God's handiwork.*" So we think, and so thought Professor Rennie and Dr. Herschel, in opposition to the absurd fancies and unmitigated nonsense but recently propagated.

The most ready way of beginning the study of botany, is by learning about a *dozen* terms, and being able to number as far as thirty, which every child can do; thus, any one may soon get a tolerable knowledge of several hundred plants, and be able to assign these to their proper classes and orders in the Linnæan system. To facilitate the learning of the terms, get any flower—a lily, a primrose, or a buttercup, and study them over once and again, naming them each time, till they are fami-

liar. The annexed figures will explain the several parts clearly.



1. On the *outside* of the flower a green sort of cup is seen, (*a*), in which the coloured part stands as an egg does in an egg-cup. The learner may call this the *flower-cup*; but botanists call it by the Greek name, *calyx*.

2. Within this flower-cup, or calyx, which may be taken off to show what it contains, is seen the coloured part of the flower, (*b*;) that part which is yellow in the primrose, blue in the violet, and red in the rose. This may be called the *blossom*; but botanists call it by the Latin name, *corolla*.

3. In the primrose, this blossom, or corolla, is seen to be in *one* piece; but in the rose and other flowers, it is of *several* pieces, (*c*.) The learner may call each of the pieces a *flower-leaf*; but botanists call it a *petal*.

4. Within the flower-leaf, or *petal*, in the primrose, fine small bodies may be seen standing round in a circle, (*d*), with little tips, somewhat *shaped* like a barley-corn, though a great deal smaller, and a slender stalk supports them. Each of the fine bodies the learner may call a *male*; but botanists call it a *stamen*.

5. The male part, or *stamen*, has two parts; an upper, and an under part. The under part may be called the *stalk*, (*e*;) but botanists call it the *filament*.

6. The top part (*f*), may be called the *tip*; but botanists call it the *anther*.

7. When the tip, or *anther*, of the male

is broken or bursts, as it always does of itself, as soon as it is ripe, a coloured powder is seen, which the learner may call the *tip-dust*; but botanists call it the *pollen*.

8. When the calyx, the corolla, and the stamens are all cut away, the centre part of the flower alone will remain on the top of the stem. This part the learner may call the *female*; but botanists call it the *pistil*.

9. The female, or *pistil*, consists of a base, the middle, and a top. The base of the pistil, (*g*,) is always more or less bulged out; it *always* contains the seeds, and the learner may call it the *seed-vessel*; but botanists call it the *ovary*.

10. The middle part, (*h*,) of the pistil may be called the *pillar*; but botanists call it the *style*.

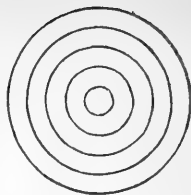
11. The top of the pistil the learner may call the *summit*, (*i*;) but botanists call it the *stigma*.

12. There is only one more term to be mentioned, at present, applied to a peculiar sort of leaf,—sometimes according to the kind of plant found on the flower-stem, often at the base of the leaves, and seen conspicuously in pinks, carnations and picotees. It frequently surrounds fruits, as the calyx does the corolla. This, which botanists call the *sub-calyx*, and other names according to its situation, we shall, for convenience, call the *scale*.

Now these dozen terms,—1. Calyx—2. Corolla—3. Petal—4. Stamen—5. Filament—6. Anther—7. Pollen—8. Pistil—9. Ovary—10. Style—11. Stigma—12. Scale,—are all which the learner need get perfectly, to begin with. A few other terms, but not more than half a dozen, may be wanted as we proceed.

The order in which these parts are met with in dissecting a flower, is best illus-

trated by placing five circles, one within the other. Thus, on the *outer* circle place the *scale*, whether it be leaf scale, flower scale, or fruit scale.



On the *second* circle place the flower-cup or *calyx*, whether it be in one piece or several pieces.

On the *third* circle place the blossom, or *corolla*, whether it consists of one *petal* or several.

On the *fourth* circle place the males, or *stamens*, whatever be their number, with their stalks or *filaments*, and their tips or *anthers*, containing the tip-dust or *pollen*.

On the *inner* circle place the female part, or *pistil*, with the seed-organ, or *ovary*, at the base, the pillar, or *style*, in the middle, and the summit, or *stigma*, on the top. Always begin the examination with the *outer* circle.

It will sometimes happen, that all the parts belonging to the five circles will not be found; but after a little experience, it will be easy to distinguish whether it be the *calyx*, or *corolla*, or any other part, which is wanting to complete all the circles.

The twelve terms having been perfectly understood, as well as the order in which the parts of the flower are placed on the five circles, the learner may now be instructed how to find the *class* in which any flower is ranked by Linnæus. These classes with their orders, are founded, among other facts, upon the different numbers and situations of the *male* and *female* organs in the flowers of plants. And here we have a wonderful instance of the economy of nature in assimilating plants to animals. At the very moment that the *anthers* of the male organs burst, and emit their *pollen*, the fe-

male *pistil* is ready to receive it. The atoms of the pollen strike root, as it were, upon the *stigma*; their influence is transmitted down the *style* to the *ovary*, the seeds swell and perfect themselves, and the process is completed. Thus it is that we cross the breeds of flowers, vegetables, and fruit, and very often bring about valuable improvements. To illustrate the twenty-four Linnæan classes, we give the following figures of those parts of flowers which brings each into its respective class:

The parts of the flowers here represented, only show the peculiar feature which brings each into its proper place.

The first grand division of the Linnæan system, consists of those plants with *conspicuous* flowers, and the organs of fructification evident. In the first *fifteen* classes, the stamens are *not* united, and the flowers are bisexual. In the 16th, 17th, and 18th classes, the stamens are united *by the filaments*. In the 19th class, the stamens are united *by the anthers* into a cylinder. In the 20th class, the stamens are attached to, and stand *upon the pistil*. In the 21st, 22d, and 23d classes, the flowers are of *distinct* sexes; and in the 24th, and last class, the flowers and parts of fructification are *not* evident.



CLASS I—MONANDRIA.—Flowers with one *male organ*, or *stamen*; such as red-spurr, arrow-root, canna, marsh, samphire, &c.

CLASS II—DIANDRIA.—Flowers with two *male organs*, or *stamens*; such as veronica, jasmine, lilac, rosemary, &c.

CLASS III—TRIANDRIA.—Flowers with three *male organs*, or *stamens*; such as valerian, gladiolus, iris, &c.

CLASS IV—TETRANDRIA.—Flowers with four *male organs*, or *stamens*; such as dogwood, galium, holly, box, &c.

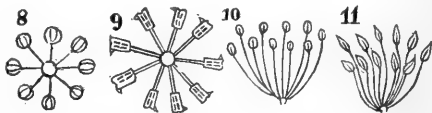
CLASS V—PENTANDRIA.—Flowers with five *male organs*, or *stamens*; such as solanum, prim-

rose, forget-me-not, convolvulus, vine, gooseberry, currant, violet, &c.



CLASS VI—HEXANDRIA.—Flowers with six *male organs*, or *stamens*; such as narcissus, tulips, snowdrops, hyacinths, berberis, &c.

CLASS VII—HEPTANDRIA.—Flowers with seven *male organs*, or *stamens*; such as the horse chestnut, &c.

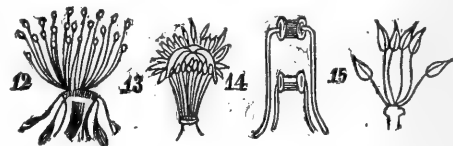


CLASS VIII—OCTANDRIA.—Flowers with eight *male organs*, or *stamens*; such as heaths, Fuchsias, nasturtian, &c.

CLASS IX—ENNEANDRIA.—Flowers with nine *male organs*, or *stamens*; such as laurel, rhubarb, &c.

CLASS X—DECANDRIA.—Flowers with ten *male organs*, or *stamens*; such as rhododendron, baptisia, hydrangeas, carnations, pinks, &c.

CLASS XI—DODECANDRIA.—Flowers with *twelve* to *nineteen male organs*, or *stamens*; such as sempervivum, mignonette, &c.



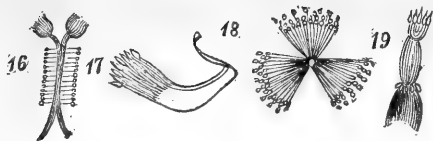
CLASS XII—ICOSANDRIA.—Flowers with an indefinite number of *male organs*, or *stamens*, but usually *twenty*, inserted in the calyx; such as the apple, pear, peach, bramble, &c.

CLASS XIII—POLYANDRIA.—Flowers with *twenty* or more *male organs*, or *stamens*, inserted in the receptacle, (or supporting part of the fructification); such as the ranunculus, poppy, anemone, columbine, &c.

CLASS XIV—DIDYNAMIA.—Flowers with two *male organs*, or *stamens*, of one length, and two of another length, that is, two long and two short; such as digitalis, lavender, marjoram, balm, &c.

CLASS XV—TETRADYNAIA.—Flowers with six *stamens*, or *male organs*, four of them long, and two short; such as sea-kale, mustard, cabbage, wall-flower, &c.

CLASS XVI—MONADELPHIA.—Flowers with many *stamens*, or *male organs*, united *by the filaments* in one body; such as malva, laburnum, tiger flower, furze, camellia, hollyhock, &c.



CLASS XVII—DIADELPHIA.—Flowers with the *stamens*, or *male organs*, united by the *filaments* into *two* bodies; such as fumitory, milkwort, clover, tares, peas, beans, &c.

CLASS XVIII—POLYADELPHIA.—Flowers with the *stamens*, or *male organs*, united by the *filaments* into more than *two* bodies, usually three; such as orange and lemon trees, hypericum, &c.

CLASS XIX—SYNGENESIA.—Flowers with the *stamens*, or *male organs*, united by the *anthers* into a tube; such as dandelion, hawkweed, thistle, groundsel, marygold, &c.



CLASS XX—GYNANDRIA.—Flowers with the *stamens* or *male organs* *b*, resting upon and attached to the *pistil*, or *female organs*, *a*; such as the lady's slipper, orchis, &c.

CLASS XXI—MONŒCIA.—Flowers, both *male* and *female* on the *same* plant,—the *male* flowers having no pistils, the *female* flowers no stamens; such as the begonia, oak, walnut, beech, pine, cucumber, larch, &c.



CLASS XXII—DIOECIA.—The *male* and *female* flowers on *different* plants; such as the poplar, bryony, mistletoe, hemp, hops, &c.

CLASS XXIII—POLYGAMIA.—In this class the flowers are either *only* male, or *female*, or *both* united in the *same* flower, that is *male* and *female* flowers, on the *same*, or on *different* plants, along with *hermaphrodite* ones; such as the common ash, sycamore, fan-palm, sensitive plant, &c.



CLASS XXIV—CRYPTOGAMIA.—Flowers with the reproductive organs scarcely visible,—of course

the *flowers* are not apparent; such as seaweeds, moss, ferns, lichens, mushrooms, &c.

We have now enumerated the *classes* of Linnaeus with their examples, and shall, as briefly as possible, do the same with the *orders* in each class.

ORDERS.—As the *classes* are formed chiefly from the number of the *stamens* in the flower, (especially in the first thirteen classes,) so the *orders* are formed principally from the number of the *styles*, viz., *Monogynia*, (one female,) style one. *Digynia*, styles two. *Tryginia*, styles three. *Tetragynia*, styles four. *Pentagynia*, styles five. *Hexagynia*, styles six. *Heptagynia*, styles seven. *Octogynia*, styles eight, &c. *Polyginia*, styles numerous.

Here are thirteen classes, and each has *one* order, referable to the number of the styles or *female* organs.

The 14th class has *two* orders; the first is called *Gymnospermia*, (a naked seed.) Seeds naked, *not* inclosed in a capsule. Example, *Lamium*. The second is called *Angiospermia*, (a seed vessel.) Seeds inclosed in a capsule. Example, *Digitalis*.

The 15th class also contains *two* orders; first, *Siliquosa*, (a long pod.) Pods long, as in *Sinapis* and *Brassica*. Second, *Siliculosa*, (a short pod.) Pods short, as in *Lepidium* and *Biscutella*.

The 16th, 17th, 18th, 20th, 21st, and 22d classes have their order formed exactly upon the same principles as in the formation of the class itself, that is, from the number of the *stamens*; as *Monandria*, *Diandria*, *Triandria*, *Tetrandria*, *Pentrandria*, *Hexandria*, &c.

The 19th class has *five* orders; first, *Aqualis*, (*equal*.) Florets of the disk and ray, *all* hermaphrodite. Second, *Superflua*, (*superfluous*.) Florets of the disk, hermaphrodite, of the ray female. Third, *Frustranea*, (*in vain*.) Florets of the disk fertile, of the ray sterile. Fourth, *Necessaria*, (*necessary*.) Florets of the ray female, of the disk male. Fifth, *Segregata*, (*separated*.) Each floret having its own peculiar involucre.

The 23d class has *two* orders, formed precisely on the same principles as the 21st and 22d classes, called *Monœcia* and *Diœcia*.

The 24th class has *nine* orders, formed chiefly from the reproductive organs. Of these, we shall only give the names, and a few examples of each. First, *Filices*, Ferns. Ex. *Polypodium*, *Ophioglossum*, &c. Second, *Equisitacæ*, Horsetails. Ex. *Equisitum*. Third, *Lycopodineæ*, Club-mosses. Ex. *Lycopodium*. Fourth, *Marsileacæ*. Ex. *Pilularia*. Fifth, *Musci*, Mosses. Ex. *Hypnum*. Sixth, *Hepaticæ*. Ex. *Marchantia*. Seventh, *Algæ*, Sea Weeds. Ex. *Exillaria*, *Conferva*. Eighth, *Lichenes*. Ex. *Lichens*. Ninth, *Fungi*. Ex. *Agaricus*, *Clavaria*, *Morchella*, &c.

This completes the outline we had in

view, and presents to the reader's mind a brief record of the structure of the Linnean system of botany. If this is studied, and perfectly comprehended, further progress will be easy, as a considerable amount of fundamental knowledge will have been obtained, which may be most usefully applied. It is vastly agreeable to be able to appreciate the various modifications of organization that connect one tribe of plants

with another, and to understand the infinite wisdom and beautiful simplicity of design, which are so visible in the vegetable world; the just appreciation of which, through countless gradations of form, structure, and modes of existence, it should be the constant aim of the botanist to demonstrate.

WM. W. VALK, M. D.

Flushing, L. I., Nov. 25, 1848.

NOTES ON THE CULTURE OF THE CAMELLIA.

BY NOEL J. BECAR, NEW-YORK.

WE have great pleasure in giving the following notes to the readers of the Horticulturist.

They are written by a noted amateur cultivator, N. J. BECAR, Esq., who has the finest private collection of this superb plant, both as regards number of varieties and beauty of specimens, to be found in the United States.

The *Camellia japonica* has, indeed, been the favorite plant of Mr. BECAR for years. His superb *Camellia-house* at Brooklyn, 100 feet long, and filled with specimens, so admirably grown that they may be called *conservatory park-trees*, when compared with the ordinary ill-shaped *forest* growth of our green-houses, presents, in midwinter, the most glowing picture of exotic beauty that it is possible to conceive. We counted, last January, 120 flowers in bloom at once, on a single plant of the *Double White*; and there were many other sorts, scarcely less remarkable for their unusual size and beauty.

To Mr. BECAR's long devotion to this tribe of plants; and his great sagacity as a practical cultivator, we ascribe the remarka-

ble perfection of his plants. Our readers will observe that his directions are strikingly simple, and free from the quackery of some of the old-school cultivators. It is, however, the simplicity of experienced skill—which knows what is really essential—that simplicity, at once so rarely found, and so valuable when found. ED.

DEAR SIR—Although I have had considerable experience in the culture of this noble plant—the *CAMELLIA*, yet my course of culture is so very simple that I fear I cannot impart much, if anything, that would interest the readers of your excellent journal. As, in your request, however, you desire "rough notes" of my mode of treatment, I comply with pleasure, hoping that you may be able to glean from my remarks something that will interest the readers of the Horticulturist.

I will commence with the *SOIL*, as I deem that a most important point, in the cultivation of the *Camellia*.

About midsummer I procure, from an old pasture or common, some rich loamy soil, or rather *sods*, $1\frac{1}{2}$ or 2 inches thick. This I place in a heap, fully exposed to

the sun and air, until the grass is killed, and the sods are sufficiently rotten for use, which will be in about two months. The sods are then removed under a shed, and kept dry, so as to be fit for use at any season. I also procure, at the same time, some *leaf soil* from the woods, well decomposed, but light and "sweet." (I prefer the soil taken from the surface, and from a part of the woods where there is *rising ground*; as the leaf soil from a hollow is apt to be sour and unfit for use.) This I place at once under a shed, so as to keep it from rains. These two soils constitute all the materials for my Camellia compost, which is as follows: *equal parts of loam and leaf soil for very young plants*, (say from a mere cutting, up to six inches in height;) and as the plants increase in size, I increase also the quantity of *loam*, so that *my largest plants have two-thirds of loam and one-third of leaf soil*. I have formerly added to the above $\frac{1}{8}$ or $\frac{1}{10}$ of *well rotted manure*, with good effect; but finding that the manure generated many worms in the pots, I rejected it. I now prefer, instead, *guano-water*, used once a week, while the plants are growing freely, say in April and May. The proportion I employ, is one pound of good guano to 15 gallons of water.

I ought to have mentioned, that before mixing the loam with the leaf soil, the sods are *chopped up* fine with a spade; but this you would, of course, infer from the nature of the operation. I prefer the soil moderately coarse to having it too fine.

I have no particular rule for *re-potting* my Camellias. Any intelligent amateur or gardener will know, by the size of the plants and roots, what sized pots they require. I re-pot my Camellias once a year, except large plants, in very large pots or tubs; and the latter, once in two or three years. I give them as much pot-room as

I think the roots will be able to encompass during that time. If too much pot-room is given, the soil does not dry as freely as it should, and is liable to become *sour*, which will inevitably destroy the roots, and of course the health of the plants. On the other hand, if too little pot-room is allowed, the plants will grow weak, the foliage will turn yellow, and the flowers will be small. Both extremes should be avoided. Camellias having very tender roots, they are very liable to be injured by over watering, or being kept too wet for a long time. It is, therefore, important to have the water pass freely through the pots; and for that, *good drainage*, with pot-shreds, is indispensable.

While I am yet on the subject of re-potting, I will add that I usually re-pot my Camellias in the *spring*, just before they begin to grow. I prefer the spring to the fall for re-potting, for two reasons; one is that I have more leisure to devote to them at this time; and the other, and more important, is that when re-potted in the fall, the buds are more liable to receive a check and turn black, particularly on plants, the balls of which require *picking* to extricate the old soil. Plants that are well rooted require no picking at the roots; and so, can be re-potted almost at any time without any injury whatever.

When Camellias are re-potted in the fall, their roots will reach the side of the pots by the following spring, and are more exposed to injury from our hot summer; but when re-potted in the spring, the roots, not reaching the sides of the pots so soon, are not so exposed to the injurious effect. After stating so much, I will still add, that the choice of the two seasons for re-potting is of course a matter of opinion and convenience; if the plants are well treated, they will do well whether re-potted in the spring or autumn.

I now come to another important point in the management of the Camellia. This is the *watering*,—on the proper management of which will much depend the health and vigor of the plants. No particular rule can be laid down for watering; it must depend on the practical knowledge of the amateur or gardener. There is, however, no absolute difficulty about it. Good common sense, and due attention are all that are requisite to perform with perfect success this part of the management. Camellias require to be freely watered *when they are growing*. Partial watering should be avoided. I mean by this, that when they are watered, it should be done *thoroughly*, so that the water will go *through the pot*, and not on the surface only; and hence it is best not to water unless the plant actually needs it; for if kept too wet long, the soil will lose that *sweetness* which the delicate roots of this genus always require.

The Camellia delights in a moist atmosphere; and for that reason, frequent *syringing* of the leaves will greatly promote their growth and vigor. I usually commence syringing the top of the plants once a day in the spring, when the plants begin to grow, and that in the morning, when the heat of the green-house is moderately warm. I increase the syringing as the warm weather advances, so that they have two good syringings every day (night and morning,) in summer, when the weather is very hot and dry. This not only promotes their health, but it keeps off the insects, to which the Camellia is liable, and especially that great enemy and plague of the gardener—the *red spider*. The syringing should be decreased as the temperature becomes cooler in the autumn, and should be avoided when the weather is very damp or very cold. Light syringing in winter would be

very beneficial to the plants when the house is sufficiently warm, say about *temperate* (Fahrenheit,) and particularly so, as the fires which are required in cold weather are apt to make the air much too dry for Camellias; but as the syringing would injure the flowers, it is avoided during the blooming season. To maintain, in some measure, that moist air which is so congenial to the Camellia, and which is lost by the action of the fire, I sprinkle water upon the pipes, flues and floors of the green-house, and that usually in the morning. After the hot fires of the night, the foliage is very susceptible of dryness in the air; and as syringing cannot be used, on account of spoiling the flowers, the water thrown on the pipes or flues creates a moist air and dew, which, with the genial warmth of the sun, greatly tend to invigorate the plants and make them bloom freely.

I come now to the heat or temperature, which the Camellia requires to grow and bloom it to perfection. In this case, as in many others, extremes are to be avoided. This plant, in fact, requires *uniformity of temperature*; but our climate is so very variable that it is almost impossible completely to define any rule on the subject. In winter—say from the first of October to the first of March—I endeavor, as much as possible, to keep the temperature of the Camellia-house from 48° to 60° [Fahrenheit.] It will sometimes cross both lines; but in no case do I allow the glass to go lower than 40° or higher than 65°. In summer time, (or rather from 1st of March to 1st of October,) the thermometer seldom falls lower than temperate (60°;) but our bright summer sun will cause the glass to rise to 90° and upwards, and it cannot be avoided. Some of the Camellias suffer much from this great heat; but, as a compensation, we have flowers much more

finely variegated than we should have with a lower temperature. Such, at least, is my experience.

I keep my Camellias in the green-house all the year round. Two reasons compel me to this course: one is, that I have not a suitable place for them out of doors; the other is, that I conceive that, if taken out of the house in summer, they would be exposed to the heavy rains, and frequently receive much more water than is necessary for their health; and they would consequently be liable to lose a portion of their roots. The only inconvenience I experience in keeping them in the house, during the summer months, is their liability of being attacked by the red spider; but they can be kept free from that pest by frequent and powerful syringing.

If Camellias are kept out of doors in summer, (i. e., from 15th of June to 15th of September,) a site should be selected against a wall, hedge, or fence, (I mean on the north side,) with an *awning* to shade them from the sun the greater part of the day, say from 8 A. M. to 5 or 6 o'clock P. M. This awning could also be used to great advantage during long and heavy rains, in protecting the plants from excess of moisture

when water is not needed at their roots. I have no doubt that, *with these precautions*, namely, shelter from the sun, heavy rains, and high winds, Camellias, under proper treatment, will succeed just as well, if not better, than those kept in the green-house all the time.

I ought to mention that, early in the fall, I usually *thin out* the buds of my Camellias, on such plants as have too many, leaving only *one bud on each shoot*, and that only on the most prominent ones. This gives greater vigor to those which are left, and produces flowers of greatly increased size.

When it is desirable to have the Camellia flower as early as practicable, I try to keep a gentle heat in the green-house during the autumn months, and I do not allow the temperature to fall too low, so as to check the sap, and cause the bud to become black, and sometimes hard and scale-like, so that they will not open; all of which can be avoided by proper treatment—that is, by guarding against all *extremes of temperature*, and by attending to those points respecting the *watering*, which I have already noticed. Very respectfully yours,

NOEL J. BECAR.

New-York, Nov. 3, 1848.

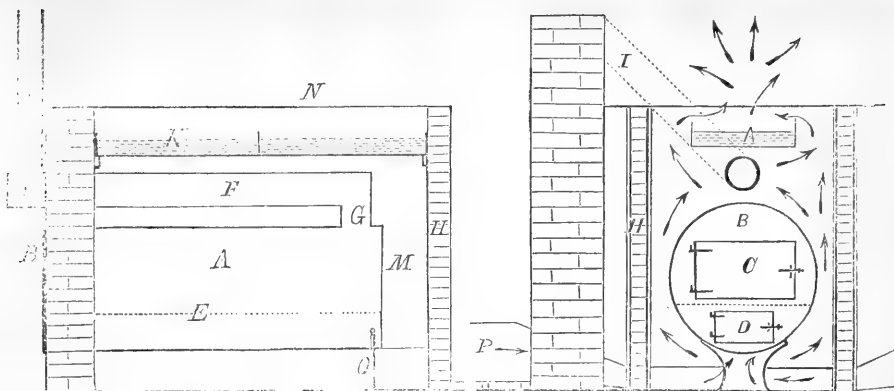
A SIMPLE MODE OF HEATING GREEN-HOUSES.

BY A SUBSCRIBER, MONROE, MICHIGAN.

DEAR SIR—I wish to give you my plan of heating a green-house; and as it approaches so near the “Polmaise” method, if it were not that the principle has been adopted in this section for a considerable time, might be supposed to be only borrowed from the “Polmaise.”

Description.—A, solid cylinder of cast iron, one-fourth of an inch thick, 20 inches

in diameter, and 4 feet 4 inches in length; and for convenience in casting, the end, B B, is left open; after which, and before the same is placed in the brick work, a front of heavy sheet, or light boiler iron, is closely fitted to the same, having two doors, C and D,—one for wood, the other opening to the ash-pit. E E, the grate. F, smoke pipe, of cast iron, with an elbow, but all in one



piece, and a cement joint at G. H H, brick work, surrounding the furnace, 4 inches thick, (made tight by plastering both sides,) except the front wall, which supports the end of furnace; this is 8-inch work. I I, common stove pipe, leading to chimney at such an angle as will prevent soot from accumulating. J J, soot door for cleaning the horizontal flue or smoke pipe. K K, cast iron water tank, 20 inches wide, 4 feet 2 inches in length, and 5 inches deep, resting upon a projection in the brick work. The length of the water pan, however, is governed by the width of the air chamber at M. N N N, sheet iron slides or covers, resting upon the top of brick work, and by moving these slides, the opening for the hot air can be made of any width, or entirely closed. O, a cast iron support for the back end of stove, three-fourths of an inch thick, standing on edge, which allows the stove to expand in length or contract, without displacing any part of the work. The bottom of the air chamber is on a level with the floor of the green-house.

The stove and fixtures, placed in the middle of, and not at the end of the house. Two supply drains, P P, conduct the cold air from both ends of the house; these are made of well seasoned plank, air tight, 16 inches square, and placed directly under

the plant ranges, four inches above the floor. As they approach the furnace, they are contracted in depth but increased in width, till entering the air chamber, they are nearly as wide as the *length* of the stove.

The wood work of the supply drain only reaches the brick work, which is here supported by an iron bar, with a single brick under its centre, as a support. On the inside, within the air chamber, are small piers of brick work, six inches high, extending nearly under the centre of the stove, on the top of which is placed two pieces of sheet iron, that the cold air may be conducted directly under the centre of the stove.

I think this plan, in some respects, preferable to the Polmaise. My supply drains are kept upon the surface; the air within growing warmer as it approaches the furnace, instead of getting colder, as in the Polmaise plan, by descending so far beneath the surface, and away from the influence of the heated air of the house.

If the air in the air-chamber, around the stove and its pipe, becomes much heated, as it does, it must rise if the slides, N N, are drawn apart. This calls for a new supply, which can only be furnished by the drains. Every degree of heat that can be retained in the air of the drain, as it ap-

proaches the furnace, is certainly so much saved, requiring less heat from the stove to raise it to a proper temperature. I believe it to be more simple, and cheaper in its construction. There is no expansion of any part by heat, that can in the least degree affect the permanency of the structure. There cannot the least quantity of deleterious gas escape through the brick work, (as is possible in the *Polmaise*,) for there is none that comes in contact with the fire. With a differently constructed stove, coal may as well be used as wood. But here, as in many parts of country, wood is much the cheapest; and as it can be used market length, or four feet long, and of almost any size, there is no expense in preparing it for the stove.

A friend of mine has suggested the propriety of covering the top of the stove, and half down its sides, with 4-inch brick work; believing it will throw out its heat with much greater regularity.

Would it not have this effect? And would there be anything lost or gained in communicating the necessary heat to

this additional quantity of brick and mortar? A SUBSCRIBER.

Monroe, Michigan, Nov., 1848.

[This appears to be a clever application of the same principle, in warming green-houses, as that called the *Polmaise*. The heat would be rendered more moderate and steady, and, therefore, be less liable to injure the plants, by having the stove partially, or wholly covered with brick work.

We think it very important that a supply of *fresh air* (from out of doors,) should also be furnished to the hot-air chamber; because, as our correspondent's apparatus is now arranged, the only supply of air is drawn from the interior of the green-house, to be warmed; as a necessary consequence, there will be a deficiency of fresh and pure air for the plants. This is easily obviated, by having another cold-air drain, communicating with the open air, with a valve or slide, so that it may be used whenever necessary. It may, indeed, always be opened with great advantage when the temperature of the house rises too high, or too rapidly. Ed.]

A FEW WORDS ABOUT HEDGES.

BY P. W. R., NEW-YORK.

I AM delighted with the *Osage Orange*, as a hedge plant. When I was in Ohio, a short time since, I saw several miles of this tree, in all stages of hedge growth, from plants six inches high to well grown hedges, measuring seven feet in height. Its beautiful, polished and glossy foliage, and healthy, luxuriant growth attract the eye, even at a distance. In fact, I have never seen any hedge, except one of *holly*, (which does not appear to thrive in the northern states,) so handsome, taken altogether, as

the *Osage Orange*. It is also possessed of most efficient means of *defence*, in its long and sharp thorns; which, though they are somewhat concealed by the leaves, make themselves felt at the least approach of anything "on the attack."

It is, perhaps, yet a question, precisely how far *north* the *Osage Orange* will thrive, as a hedge plant,—since it comes originally from Arkansas.

I will state, however, that I have seen a neat hedge of this tree in the grounds of

John P. Cushing, Esq., near Boston. I understood, while there, that although the Osage Orange, planted out as a *tree*, is not quite hardy in the climate of Boston, yet, as a hedge, it is found to be completely so. This is, no doubt, owing to the short and well-ripened growth of each year, upon plants, so continually checked in their shoots by clipping, and by being planted so near each other as to prevent that *sappy* and redundant growth, frequent in young single specimens.

The *Buckthorn* hedges, about Boston, are also very fine,—some of them eight or ten feet high, very symmetrical, and very regularly sheared. Some of them which I saw, were about ten or twelve years old, and were as strong as a wall, so that a man might walk along on the top. This plant is so very hardy, and will grow so easily and well in all kinds of soil, high or low, wet or dry, in the open sun, or under trees, that it is very valuable.

I think justice has not been done, in your journal, to the *Privet*, or Prim, for hedges.

When a person wishes a neat division in his pleasure grounds, or wants to enclose his garden, or to make a neat low screen, the *Privet* is one of the best plants in the world. As it is absolutely devoid of thorns, it is not, of course, fit for a fence or outside barrier. But as an *ornamental* hedge, it is always pleasing, becoming green very early in the spring, and retaining its foliage till near midwinter.

The ease with which this plant may be propagated, or a hedge “got up,” is also one of its greatest recommendations. You have only to plant a row of *cuttings*, six inches apart, in the early spring. Almost every slip will take root, and no further care is requisite, except clipping once a year. The trimmings of an old *Privet* hedge, of 50 feet long, taken in March or April, and planted, will set many hundred feet of new hedge. I think the neat dark green foliage of the *Privet* is always agreeable to the eye; and few plants are hardier, or more easily cultivated. Yours respectfully.

P. W. R.

New-York, Nov., 1848.

TRANSPLANTING TREES WITH BALLS OF EARTH.

BY AN ARBORICULTURIST, PHILADELPHIA.

SIR—This is the proper season for this operation; and those of your readers who are not familiar with it, it may be well to remind that it is the most perfect and complete way of transplanting ever practiced in a northern climate.

Trees of large size may be transplanted in this mode with great success; and it is almost the only mode in which the operation can be carried on successfully, in this climate.

Many are, no doubt, somewhat acquaint-

ed with the *modus operandi* of “balling” a tree. It is, of course, undertaken in frosty weather; not so cold that your hands cannot work in the day time, but cold enough to freeze very-sharply at night. You begin at some distance from the tree to open the trench, and carefully, and gradually *undermine* the roots, so as to preserve the ball of earth as entire as possible. If necessary, it may remain in this state for days,—till the weather is cold enough to freeze the ball quite firm, so that it will

bear *rolling* or lifting out of the hole without falling to pieces.

Of course you will have the holes dug, and made ready to receive the tree, beforehand, so that when you have the latter on the spot, there may be no obstacle to lowering the ball at once into its new bed.

I say "lowering;" and this leads me to remark, that a very great assistance in transplanting "balled" trees is a common *ship's block*, (or pulley,) fastened at the top of three stout sapling poles, set on the ground so as to form a triangle, or three-legged frame, in the same way as seamen and others use it for lifting weights. By bringing this pulley and frame over the tree, (the block should be one of the largest size, so as to hold a strong rope,) you may

fasten the rope round the ball or trunk, and thus assist very much in lifting it out of the hole, and placing it on the sled or "stone-boat."

The operation is best and easiest performed when there is a light coat of snow on the ground; for then a very heavy tree may be carried, on a sled, with a large ball of earth, by a couple of pairs of oxen.

I have succeeded in moving *hemlocks*, (which are, I think, usually thought rather shy of transplanting,) 25 feet high, and with trunks 18 inches in circumference, with great success. They scarcely changed colour the next season, and are now in the finest condition. I am, sir, yours,

AN ARBORICULTURIST.

Philadelphia, Nov., 1848.

ON GRAFT-BUDDING—A NEW AND SUCCESSFUL MODE.

BY DR. A. H. PECK, PORT GIBSON, MISS.

A. J. DOWNING, Esq.—*Dear Sir*: I take so much pleasure in studying your "Fruit and Fruit Trees of America," that I would gladly thank you, in person, for your labors.

In looking over your remarks on *budding and grafting*, I find that the American shield, or T budding, is preferred, and very justly too, over the European mode. Having great fondness for horticulture, I have practiced different modes a good deal; and I venture, at the present moment, to draw your attention to my method of *graft-budding*, for it partakes of the nature of both these operations.

This mode of budding, or grafting, differs from others, in being performed only when the bark peels. It is performed, so far as regards the stock and the incisions made, in the same way as common, or T

budding, bearing in mind the relative size of the scion and the stock. It may be performed as long as the bark will peel easily, and you can get *crown* scions; (scions on which the terminal bud is formed.)

Take the scions from a bearing tree, if you desire fruit speedily. And here I will remark, that the crown (terminal) end of the scion is far preferable for this mode to the lower, or middle part, which is recommended in all other forms of grafting. If the middle part of the scion is used, and it takes, it is very apt to lay dormant, and finally, the next spring, disappoint your expectations by dying. The crown scion almost invariably takes; it may lay dormant, but seldom fails to bud forth in the spring.

Having the scion in readiness, make the T incision in the bark of the stock; but open only the *upper* edges of the bark with

your budding knife. Hold the scion in your left hand by the upper or crown end. With your knife make a clean sloping cut at the lower end, of about an inch in length, leaving a thin lower edge, with the bark projecting a little over the wound; (two or three buds besides the crown bud should be left above the slope.) Insert this prepared lower end of the scion into the incision, press it carefully down—it will separate the bark as it goes—until it reaches the lowest point of the T incision; the bark, embracing it tightly, will add to its support. Now bind the wounded part of the stock, from below upwards, with a coarse woolen yarn; if the stock is over three inches in diameter, a double ligature is preferable. The after treatment, (heading down the stock, &c.,) is the same as in budding, with this exception; if all the shoots put forth, trim down to one or more, as you please. The growth of the first season may be three feet; but owing to its tendency to reassume the true shape, that is, to form at

once a branching head, it is retarded in height, unless the side shoots are shortened.

Graft-budding appears to me to have advantages over all other forms. I find it more certain, as well as more easily performed, than any mode of grafting; and, at least in this climate, it may be practiced seven months of the year, or whenever the bark will peel, and you can get scions with crown buds. If it fails, it does not render unsightly the appearance of your tree, as in cleft-grafting. It can be performed in one minute of time, and without wax or grafting clay.

It is generally adopted by those to whom I have imparted it, in preference to any other method. Indeed, some of my amateur friends will take any *spur* and insert it successfully in this style. With much esteem, yours, A. H. PECK, M. D.

Port Gibson, Miss., Oct. 7th, 1843.

P. S. I wish I could hand you a ripe pomegranate, now before me, six inches (either way,) in diameter.

CORRESPONDENCE ON THE BLACK WARTS OF THE PLUM TREE.

BY F. WESTON, OF SANDY HILL, N. Y., AND PROFESSOR HARRIS, OF CAMBRIDGE, MASS.

THE following letter, addressed to us by one of our correspondents, and covering a small branch which had been attacked by some insect, we forwarded, with its contents, to Dr. HARRIS, the well known entomologist.

The writer, Mr. WESTON, conceives that the black warts or knots, so troublesome to plum cultivators in some parts of the country, are the result of insect attacks.

It will be seen that Prof. HARRIS does not incline to this opinion. We are, also, led to think it more probable, from recent observations, that these warts are caused

by a disease of the sap vessels, and have found a wash of *copperas-water* a pretty effectual remedy, after cutting out the diseased parts. Ed.

A. J. DOWNING, Esq.—*Dear Sir*: I take the liberty of enclosing to you a small portion of a branch of a plum tree, in which is distinctly to be seen the insect which causes “the knots,” so destructive to that tree in some parts of the country.

I do it for the purpose of furnishing to you the evidence, upon which you can settle the question which has for a long time been discussed by pomologists, but never has,

(unless very lately,) been determined to the entire satisfaction of all.

The tree, from which the enclosed piece was taken, is young, and was brought last spring from one of the nurseries at Newburgh. The variety is "Smith's Orleans." It may be not unimportant, in this connection, to state that "the warts," or "canker," made its appearance in this garden some few years since, attacking first one tree and then another; no remedy having been applied, from the supposition that it was "a disease," and not to be cured, until finally every plum tree on the premises perished; since which time, no trees have been growing here or in the immediate neighborhood.

I have just now commenced the cultivation anew, with the trees above spoken of, and have paid pretty close attention to them through the summer. A few days since, I discovered upon a small branch of a tree, of the "Bleecker's Gage," a small exudation of gum; and, upon examination, I found it to be an embryo "wart." I cut it off, at once, and burned it. Yesterday I discovered the enclosed,—the deposit of gum being as large as the half of a Marrowfat Pea, perhaps. I determined to examine it for myself, without any very great hopes, however, of being able to make a discovery of that which had so long escaped the observation of some, at least, of our most scientific pomologists.

Upon removing the gum, and opening the branch cut off, I was astonished to see clearly and distinctly the part affected, filled with small white grubs, which you will be able to see, unless they shall have perished before this reaches you. It appears to me highly probable, that they remain two years in the tree before they undergo their final transformation; as it seems impossible that they should be able, in the brief space of mild weather of this season, and the spring

months of the next, to produce those immense excrescences which appear finally upon the trees attacked. But of this fact, you are the best judge.

I hope you will pardon me for troubling you, if you shall have, before this, made the discovery satisfactorily; and if not, the importance of the subject will, I trust, be a sufficient apology. I am, sir, with great respect, your ob't serv't,

FRED'K WESTON.

Sandy Hill, N. Y., 14th Oct., 1848.

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A. J. DOWNING, Esq.—*Dear Sir:* Agreeably to your request, I have examined the plum tree twig, enclosed in your letter of the 20th instant. The piece is nearly one quarter of an inch in diameter. There is a wound on the surface, one inch long, in a longitudinal direction, caused by a series of punctures, passing obliquely downwards and penetrating the pith. By splitting the twig, I have ascertained that these punctures or perforations were twenty-three in number, arranged in two contiguous rows, and alternating with each other; there being twelve perforations in the one, and eleven in the other row. Each of these perforations contained a cream-coloured egg, of a cylindrical form, rounded at the ends, and about one-tenth of an inch long. Many of the eggs were destroyed in splitting open the twig; but several of them still remain within the holes, drilled for their reception. All of them appear to have perished without hatching; perhaps because the twig was too soon cut from the tree. The whole surface of the twig, around the wound, is covered with a glazing, like the white of an egg. The drilling of the holes has, in a singular manner, loosened and furred up the fibres of the wood, portions of which project around the orifices, where, however, they

are more or less covered and concealed by the glazing before named.

All this is, doubtless, the work of one insect—a female *Cicada*; but whether of the species commonly called “the seven-teen-year locust,” or of some other species, is unknown to me; and I can only add, that the perforations and eggs are similar to those that I have seen produced by the former insect.

You are aware, perhaps, that the *Cicada* grubs, as soon as they are hatched, drop voluntarily from the trees, burrow in the ground, and attach themselves, by their little beaks, to the roots, upon the juices of which they subsist. Miss MORRIS, of Germantown, Penn., has made some interesting observations on their habits in the grub state, [see Hort., vol II, p. 15,] and finds them to be very injurious to the trees whose roots they attack. You will find a pretty full account of the *Cicada septemdecim* in my Treatise on Insects injurious to vegetation.

Whether the punctures of this or of any other species of *Cicada* will produce the warty excrescences that disfigure the plum tree, must be determined by further observation. Insects have repeatedly been found in the plum tree warts; but *not invariably*, according to my experience. The plum weevil often deposits in them, and occasionally also the peach tree borer, as well as another and smaller species of *Egeria*. Nevertheless, I incline to the opinion, maintained by the late Dr. BURNETT, that the warts are originally the result of disease. It is here found that, by cutting them off when small, and washing the wound with strong brine, the disease will be arrested, and the wound will finally heal.

I enclose the specimen, with the letter of your correspondent, and remain,

My dear sir, very truly,

Your friend and servant,

THADDEUS WM. HARRIS.

Cambridge, Mass., Oct. 25, 1848.

A VISIT TO THE BEST FRENCH VINEYARDS.

BY H. W. SARGENT, OF WODENETHE, N. Y.

THE following account of the vineyards of Médoc, written by a neighbor and friend, now abroad, and received by a late steamer, will greatly interest many of our readers now engaged in the culture of the vine, especially on the banks of the Ohio.

It is, we believe, pretty well established now, that the peculiar adaptation of these rocky and apparently sterile soils to the production of fine wine, is owing to their containing an abundance of the inorganic elements, (especially lime and potash,) so essential to the perfection of the grape. Foreign cultivators, however, so far as we

know, have never yet endeavored to improve ordinary vineyard soils by the necessary specific mineral manures. We hope our intelligent cultivators at the west will turn their attention to this. ED.

I wrote you in the accompanying letter, that we had visited pretty thoroughly the wine districts, where I examined carefully the soil, the vines, the grapes,—in fact, lived in the atmosphere for some time, and the following is the result of my inquiries, assisted in the statistical parts by some French works on the vine.

In the first place, I would premise that I

think the distinction of terms is not generally understood, in America, as regards the generic name of these wines. For instance, *Médoc*, which, if I am not mistaken, is usually regarded as one variety only, of the great class, *Claret*,—is, in fact, the name which comprehends all the Bordeaux varieties, as much as Madeira, or Xeres, covers all the different varieties of their class.

Médoc is, in fact, a long tongue of land, running north from Bordeaux, between the sea on one hand, the Garonne on the other, and the River Gironde on the third, and is called *Médoc*, (quasi *medio aquæ*.) because surrounded by water; it is nowhere over 1 to 2 miles wide, and elevated some 50 feet above the river; it is, in fact, a bank of gravel, entirely planted with vines, forming, perhaps, the most precious vineyards in the world.

The general character of the soil is a mere light gravel. In fact, you would be astonished to see the soil where the finest grapes grow. It appears nothing but a collection of round white pebbles, the size of an egg, mixed with sand. It really seems that the poorer the soil the better the wine; for the finer qualities are not produced from the most luxuriant vines, but, on the contrary, from those of the most stunted growth; in fact, from a soil so poor and stony that even weeds disdain to grow in it. This is, however, I think, a truth well known to grape growers in our own country. But why never practiced upon, I do not know. There seems to be something very congenial to the vine in the prolonged warmth, derived from soil of this character; for, as the peasants very quaintly say, “it works as well by night as by day”—the stones retaining the heat long after the decline of day.

What makes *Médoc* peculiarly interesting is, that the soil from which these deli-

cious wines are produced, is not a natural one, but, like the lava soil on Mount Vesuvius, which produces the famous *lachryma Christi*, owes its origin to some natural convulsion. In fact, at *Médoc* the entire ridge is evidently the débris of the Pyrenees, brought down by the annual overflowing of the Garonne, and the other mountain streams, which for ages made their yearly deposit of rubbish; for it really amounts to little else. Indeed, at 2 or 3 feet below the surface, the soil is so close and hard that it is forced to be broken up by a pick, otherwise the vine could not grow; as this mass, which they call “*alios*,” would be perfectly impenetrable to the fibres.

In Burgundy and Champagne, the vines are almost exclusively trained to single stakes, not over 3 feet high, or more than 2 feet apart. But in *Médoc*, I observed they were generally trained to rude espaliers, which were supported by uprights, certainly not over 1½ to 2 feet high; consequently, the entire vine receives the reflected heat from the soil. Manure, they told me, is never used; because, they said, it destroys the fine flavor of the grapes, and they seemed to consider it as injurious to the vine, as excessive or standing water was to the roots. A top dressing of light soil is sometimes given, simply to cover the roots, which are, strange to say, laid bare four times a year by the plough, drawn by oxen. The latter, with astonishing care, seem to have sufficient instinct to avoid treading on the exposed fibres, although in no cases are the vines over 2 feet apart.

They do not, usually, allow the vine to bear before five years old,—at least, not much; but, once commenced, they are expected to do duty annually for, sometimes, over 200 years, especially when they find a congenial soil, in which case their roots (*pivoter*) insinuate themselves 40 or 50

feet. The wines are classed, according to their excellence, into (*crus*) growths; and only a very small portion of Médoc is capable of producing "*premiers crus*." Indeed, here, as upon Prince METTERNICH's estate, at Johannisbergher, the vine is equally capricious; and you will find the finest wines growing within six inches of the most degenerate, although it is impossible to discover the least difference in soil or cultivation.

The following is a list of the wine grown in Médoc, with the average quantity of each season. The tun contains four hogsheads, called *barriques*.

1st Growth.

Chateaux Margaux, 140 to 160 tuns.

do Lafite, 120 do

do Latour, 120 do

Haut Brion, 60 to 80 tuns.

2d Growth.

Mouton, (Lafite,) 120 to 146 tuns.

Leoville, 145 to 186 tons; (the best of the St. Julian.)

Rauzan, (Margaux,) 75 to 95 tuns.

Then come *La Rose, Pichon, Longueville, Durport, Lascombe, &c.*—in all, 700 to 800 tuns. After these come the 3d, 4th, 5th *crus*, which are produced in the vicinity of the first rate vineyards, but without partaking of their excellence. All the best year's products are exported to England, the 2d best to Holland, and the inferior retained in France. This is so well understood, that the proprietor of the vineyard *La Rose* used to hoist the English flag on his house, in good years, the Dutch in middling, and the French in inferior.

England consumes more than one-half of the "*premiers crus*," and very little of inferior sorts. Russia takes a good deal, and Paris a little of the best. Holland consumes most of the second quality, and the third, and *vins ordinaires*, are chiefly used in France.

The impression that prevails in our country, that these light French wines are more or less adulterated, or mixed with brandy, is erroneous; it would spoil them. They are sometimes fortified with Hermitage, or the stronger Rhine wines. The great characteristic of the Bordeaux wines, is their *bouquet* [aroma,] which will penetrate through their *fortifications*, unless improperly mixed.

The usual price of a genuine wine of the "*premiers crus*," is £50 (per hogshead;) duty, carriage, bottling, &c., run it up to £80,—about 70 shillings sterling per doz. The entire vintage of *Chateau Margaux* has been sold on the spot for 1000 francs, (\$200,) per hogshead. The annual produce of Médoc, each good year, is from 150,000 to 170,000 hogsheads: of which, perhaps, 6,000 go to England.

It is a very pretty excursion down the river from Bordeaux, to visit the principal vineyards, and may be made in a steamer in six or seven hours; and in September, especially, it is really a very gay and charming sight; for then, Médoc presents a scene of bustle and rejoicing. The proprietors, with their families and friends, generally come out from Bordeaux to superintend and have a frolic. *Vignerons* pour in from all sides, like the Irish harvesters into England, and busy crowds of men, women, and children, dance and sing, and work in the vineyards from morning to night. All mouldy, defective, or unripe fruit is carefully picked off, and every road is thronged with carts, loaded with tubs, filled with "good measure, pressed down, shaken together, and running over," which the patient oxen are dragging to the press-house.

The latter, like our cider mills in New-England, is usually in some out-house, like a barn, and always presents a scene of

great merriment; for upon a square wooden trough stand four or five men, with bare and juice-stained legs, dancing and treading out the grapes *to the music of a violin*; the latter instrument forming an essential part of every well ordered vineyard. As these grapes are all purple, it is a very odd sight to see these dancers performing a fandango, or *pas de quatre*, stained as they are from head to foot, in the blood of the grape.

The next process is (with an instrument called *dérappoir*,) that of stripping the broken skins and grapes from the stalk, and pouring the juice into vats to ferment. The skins rise to the top, and the wine, after fermentation, is drawn off from below, in the same way as in GRAND DUKE OF TUSCANY'S dairy, near Florence, where the milk is drawn away from beneath *without the cream knowing it*, and not skimmed off from above as with us.

About 20 miles from Bordeaux we passed, at a distance, the Chateau Margaux,—the handsomest in Médoc. It is built somewhat like an Italian villa, and belongs to the heirs of the banker, AGUADO. It is unhealthy, however, and rarely inhabited. The Margaux Grape is small, and, to me, its flavor is positively disagreeable. The village of Margaux is a pretty, picturesque little place, with its white villas, green hedges, and trellised vines.

After passing Blaye, where the DUCHESSE DE BERRI was confined in 1833, in an old castle, you come to Becheville, where there is a nice chateau, belonging to M. GUESTIER, the greatest wine merchant in France. Here commence and finish, within six miles, the most celebrated vineyards of Médoc. *Chateau Leoville*, (producing the best second growth,) and also *la Rose*, the *Chateau Latour*, in the parish of St. Lambert, one and a half miles off. This last estate or vine-

yard does not exceed 330 acres, and was sold, not long since, for £60,000, (\$300,000.)

I think the next and last vineyard is *Chateau Lafitte*, belonging to Sir SAMUEL SCOTT. It is small, and makes from 300 to 400 hogsheads. All this is a very interesting journey to one, curious in this most ancient agricultural occupation, or fond of these pure and excellent French wines.

I think you would be struck with the *severe pruning* which the vines receive every year, and the constant "stopping" during the season. The vineyards themselves, partly from the very careful culture, but also from the very poor soil, are entirely free from weeds; and you rarely see a straggling or redundant vine. Indeed, they are always full of women and children, who pinch off a pushing shoot without the slightest compunction.

I will add, before closing, a word on the present degenerate state of the *fruit market* of Europe. I assure you it is impossible to procure, on the continent, such a display of fruit as you or I often have on our tables at home. Mr. L—— (of Boston,) and myself have searched all the markets, as well as *Vérge, Les trois Freres, Café de Paris*, etc.; but we find no pears, except *Duchesse d'Angouleme* and *Brown Beurré*,—magnificent, certainly, in size and fairness, but deficient in flavor. There are no grapes but Chasselas (*de Fontainbleau*;) these only average, in size of bunch and berry, the best of UNDERHILL'S Isabellas. The climate being sufficiently mild to admit of these being grown out of doors, nobody thinks of forced grapes. Even the late king had not a vinery, now a comparatively common luxury in the United States. Indeed, about Paris, one sees no forced fruit. Everything is grown by field or garden culture. Yours sincerely, H. W. S.

Paris, 27th October, 1843.

NOTES ON FORCING PLUMS.

TRANSLATED FROM THE GERMAN, BY J. W. KNEVELS, FISHKILL LANDING, N. Y.

THE following account, translated from *Lie-gel's Anleitung zur Ketricss der Pflaumen*, a standard German work on Pomology, may not attract many of our readers on the Hudson, where the finest plums are so easily grown, but it is interesting as illustrating the fruit-culture of Germany. Our intelligent fruit-growing readers will not, however, allow to escape them the hint thrown out by LIEGEL as to the admirable effects of *brewers' grains*, applied as a top-dressing to the plum. It is quite new to us, and deserves a trial in open culture.—ED.

Forcing is the term we apply to the hastening the maturity of fruits, by artificial heat. This is effected by placing trees in pots, during winter or spring, in heated apartments; or covering trees on walls, by sashes, ("with or without flues;") or, lastly, by planting them in glazed structures. The latter is the most usual and profitable mode.

Forcing trees, however, requires a great deal of attention, industry and experience, so as not to give too little or too much heat, or keep them too moist or too dry. In general, the same rules apply to forcing plums, as in forcing other fruits. During their blossoming, the heat must not be sufficient to sink below 6 to 8 degrees, (Reaumur,) nor to rise above 15 to 18 degrees; only towards the time of ripening, should any higher temperature be applied. At this period, (while in flower,) be careful that they do not receive too much water; especially avoid giving a great deal at once, otherwise not only the blossoms, but even the fruit itself, in an advanced stage, will drop. You should therefore give water every day, according to circumstances, but never much at a time, for too much moisture

will produce a yellowness of the leaves, and mouldiness at the roots, and finally the death of the tree. When the leaves and branches of a tree standing in the sun, begin to droop, this is a sign that it has been kept too dry. Notwithstanding, be not too parsimonious with your watering, for the Plum bears moisture better than any other fruit tree, and you may therefore give it a plentiful showering, in the morning of bright summer days.

If your trees are in tubs or pots, it is requisite to give them proper nutriment. Brewers' grains (*malz-keirn*) are best for the purpose, as the experience of many years has taught me. It is a strong and lasting manure, and gives large, perfect, and splendid fruit. At first, when you commence forcing, take a large handful of these grains and scatter it over the surface of the earth in your tubs; it will soon form a sort of crust, which must be broken up. In the course of two or three months it will have generally disappeared, mingling in its decay with the soil, when another handful may be added. It is hardly conceivable what great effect so trifling a quantity has upon the fruit. Your trees, in pots, will send out shoots such as are seldom seen, even from trees in the open ground, and the fruit will also attain a state of high perfection.

The question now presents itself, "What varieties shall we select for forcing?" Since forcing fruits, in Germany, is generally practiced only in the establishments of the nobility and gentry, and to add to the splendor of the table, such plants are to be chosen especially as are early, large, and of varied tints; and as there are in a forcing-house no frosty nights, no drench-

ing showers, no excessive heat or drouth, to injure the blossoming or setting of the fruit, they consequently bear in huge clusters, presenting a charming scene to every beholder.

The *Rei Imperial*, [Red Magnum Bonum] called also the "Early Forcing," is found in every forcing-house, being easily grown and bearing the knife well. The fruit is large, prune-like, of a reddish-blue, and good quality. The *Imperial Violette* is also large and handsome, of a reddish-blue, ripening rather later than the former, but surpassing it in flavor; they both bear every operation in forcing kindly, and the fruit hangs on well. The *Yellow Early Prune* is earlier, however, than either: bears in superabundance, in huge clusters, and the fruit is a real ornament to the fruit-basket. The "Monsieur" [Orleans] is still earlier: a round, blue, rather small, but good fruit. But the *Johannes Pflaume*, Prune de St. Jean, [Jaune Hative?—Ed.] is best of all adapted to forcing; being one of the earliest plums bearing in quantities, patient of pruning, and not at all sensitive to changes of temperature. Not so *La Royale de Tours*, an early, large, round, violet-blue, and capital fruit. The *Normand Perdrigon* deserves forcing, particularly on account of its beauty: it bears abundantly, and is by no means tender, but ripens late. The *Red Prune* may also be forced, as it repays our attention, for the beauty of its colours. The *Violet Perdrigon*, and the *Variegated Perdrigon* are extremely handsome, and very good plums. The *Yellow Mirabelle* and the *True Early Prune* are something later, but very excellent fruits. The last named deserves one of the best places in your house. All plums, in fact, may be pruned. The prunes, however, bear the knife better than the true plums, which in general throw out strong, thick, pithy summer shoots.

These trees should not be forced two years in succession; nor is it advisable to force trees just potted, as they are very apt to drop their fruit. One should, therefore, always have on hand a supply of trees in pots a year or two in advance, and such as show plenty of fruit-buds.

The cultivation of plum trees *in pots* in the open air, is also a source of enjoyment, as they blossom readily. But the blossoms should be protected from rain and cold nights, of which they are very intolerant, and from which they must be protected if you expect gratification from their fruiting. I have set tall stakes alongside the tree, over which were thrown rafters to support shutters, which rendered good service the whole season, since the rain occasions the falling of the fruit, prematurely cracks them, and also renders them vapid and tasteless. These covers are taken off in fine weather. They are indispensable to all fruit trees, and without them you can never be quite successful and certain of enjoying a fine crop. Instead of wooden covers, straw or rush mats, or canvass awning may be made use of. Of course the laying on and taking off these covers, throughout the year, occasion a good deal of trouble, but one is well rewarded for the pains. Consider what infinite toil and attention the florist expends on his favorites, which only gratify the eye and olfactory nerves; whilst fine fruit, together with these, excites the palate, also, most exquisitely. Should you have no fit place under shelter, to set your pots during winter, they may be drawn out and laid in, in the open ground. In the spring they are to be repotted; first shortening in their roots, shaking off the old and adding new, rich earth, which does not impede their fruiting, as the stock of the root adheres to a ball of earth.

PRACTICAL HINTS TO AMATEURS.

BY "AN OLD DIGGER."

GRAFTS may be cut now, as well as later in the winter, if more convenient to you. Keep them in a cool place, half-buried in earth or sand, till you want them. If not wanted till spring, bury them out of doors, with only a couple of inches of the points exposed, and throw two or three inches of litter over them.

Strawberry beds will produce good crops in open winter quarters, in the Northern States; but they will bear much better ones, and much larger fruit, if you cover them lightly with straw, salt-hay, or stable litter; otherwise you are likely enough, in stiff soils, to find half the plants dead or injured by being "thrown out in the spring."

You may transplant, all winter, when the ground is not frozen—only take care not to expose the roots to frost while not covered with soil. In winter-planting, it is best to pile up a mound of earth 6 or 8 inches around the trunk of the tree. This keeps it steady, and protects it, partially, against severe frost.

If you are very anxious to be cheated, send to some nursery that modestly informs the public of its immense superiority over every other establishment in the world; or that offers hundreds of varieties of "splendid, pre-eminent, and delicious" fruits, not to be found elsewhere—or that challenges competition for accuracy. Where there is so much modesty in boasting, there must be great diffidence in sending you anything but what the dealer knows to be first rate; and you must be aware, yourself, that there are now *hundreds of first rate* fruits. If you send to a nursery for a new variety of tree or plant, don't expect to see the plant as high as your head, or the tree fit to bear a bushel of fruit. Be content if it is healthy,

has a good root, and is a foot high. People "in the trade," can't afford to send you large trees, full of grafts or cuttings, of sorts which are scarce as guineas, and which have not been long enough in the country to enable them to get more than one year's growth. If you want "big trees," order the good old standard sorts.

When a tree brought from a distance has been a long while out of the ground, and looks quite dried up, don't plunge it into a tub of water; that would be well-nigh as fatal as giving a gallon at a single drink, to a man nearly dead of thirst. *Moisten* the roots, and after shortening the branches severely, bury the *whole tree* in the ground for three or four days.

When you prune a small branch of a tree, always see that a *bud* is left opposite the cut; this will help it to heal over quickly: and you will assist the matter still more, by making the cut always a *sloping* one.

If you are obliged to plant trees in the rich but worn-out soil of an old garden, and you have not time nor means enough to cart away part of the old soil and replace it with new, you can renew its fertility by throwing a part of it up in heaps, mixing it with brush, faggots, saw-dust, or any sort of cheap fuel, and burning it.

Don't let insects of various kinds overrun your orchard or garden, and then lazily fold your arms and say, "it's no use, this trying to raise things, now that so many vermin are about." Spend three days, industriously, in the early stage of the matter, in putting down the rascals, and then look around you and see if a little industry is not better than grumbling.

If you want early vegetables, set your-

self, in winter, about making some boxes to protect them. A few cheap boxes, a foot square, with a pane of glass in the top, to put over tender things at night, will cost you but a trifle, and will give you ten days start of the open ground.

To have good currants, gooseberries, or raspberries, the old plants should be dug up at the end of three or four good crops, and their places supplied by young ones. If you plant a few cuttings of the two former, as you should do, every spring, you will always have a supply of fresh plants ready at all times: always cut out all the eyes (buds) of a cutting, on that part which goes in the ground—otherwise you will be troubled by their coming up, year after year, in the form of *suckers*.

If you have a tree that grows "apace," but won't bear, dig a trench round it, and cut off a third of the roots. This will check its growth, and set it about making fruit-buds.

Never buy fruit trees in the "market-places," of unknown venders, who have no character to lose. You cannot tell by "examining the article," whether they cheat you or not; and you get your tree at half price, only to wish, when it comes to bear, that you had gone to an honest dealer and paid ten times as much, for something worth planting. "Hog-Peach" trees are dearer at a penny, than "George the Fourths" at a dollar.

If you don't love flowers yourself, don't quarrel with those who do. It is a defect in your nature which you ought to be sorry for, rather than abuse those who are more gifted. Of what possible "use" is the *rain-bow*, we should like to know? And yet a wiser than you did not think the earth complete without it.

Do not grudge the cost and labor necessary to plant a few of the best shade-trees

round your house; and if you have any doubts about what to plant, stick in an elm. There are few trees in the world finer than a fine sweeping elm; and two or three of them will give even a common-looking dwelling a look of dignity. If you plant fruit trees, for shade, they are likely to be broken to pieces for the fruit, and they grow unsightly by the time that forest trees grow spreading and umbrageous.

There are very few men whose friends build so fair a monument to their memory, as they can raise with their own hands, by planting an elm or a maple where it can grow for a century, to be an ornament to the country.

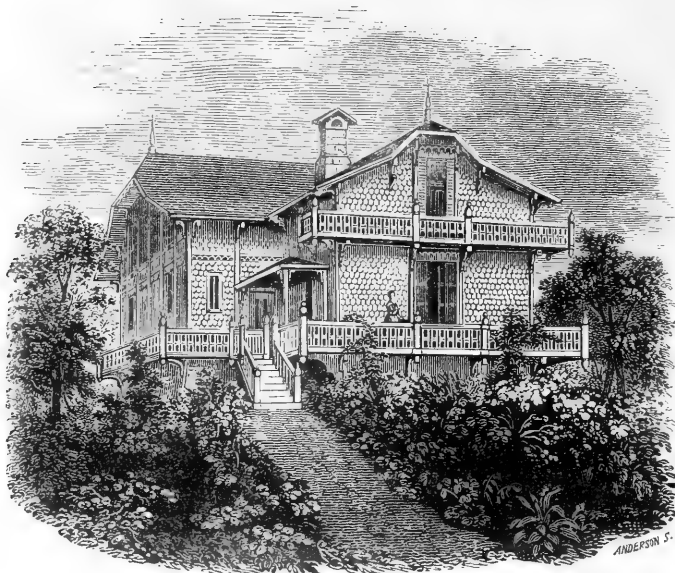
Don't be afraid to clip hedges, or cut-back young trees, when you are planting them. You gain more growth than you lose, though you may not be able to comprehend it till you have seen it with your own eyes.

Never work your ground in wet weather if you can avoid it, as it makes it clod-like and compact by forcing the air out. And ridge up your kitchen garden ground before winter, so as to expose as much surface as possible to the action of the frost.

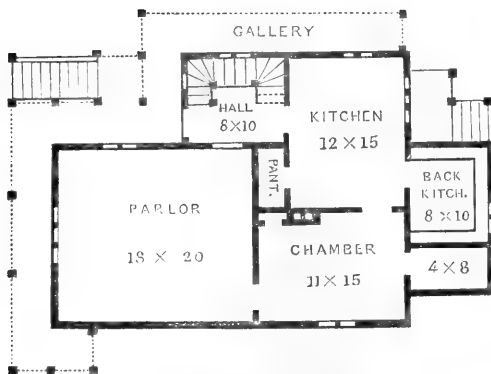
Never lose an opportunity of getting *sods* from the corners of old pastures, or the breaking up of commons or meadows, where they can be spared. Placed in heaps, and rotted, they make excellent mould for tender plants or trees; placed in a pile and burned, they form the best fertilizer for roses and rare flowering plants.

Send a man about your neighborhood to collect all the bones that are thrown away as useless by persons ignorant of their value. Put them in a large pot and pour sulphuric acid and water over them, and they will all turn to paste, and finally to powder. This is the best possible manure for pear trees and grape vines.





A COTTAGE IN THE SWISS STYLE.



PRINCIPAL FLOOR

[Hort : December, 1843.]

DESIGN FOR A SWISS COTTAGE.

OUR FRONTISPIECE for this month, presents a view of an exceedingly pretty Swiss cottage, designed by Mr. PENCHARD, architect, Albany.

It is one of a number of ornamental cottages, erected by E. P. PRENTICE, Esq., of Mount Hope, near Albany, and which now not only ornament a portion of his estate, but form, with the grounds attached to them, exceedingly tasteful and agreeable residences for several gentlemen who now occupy them.

The present design shows how the picturesque, and somewhat wild character of the Swiss *chalét*, may be adapted to our cottage requirements. While the most agreeable features of this style of building are preserved, the roof projected upon bold brackets, the galleries, the coped chimneys, etc., the whole has a domestic and habitable air, and affords a most convenient and comfortable residence for a family of moderate size.

An inspection of the plan of the principal floor, will show the accommodation of this portion of the house. It is one well calculated for cottage house keeping,

where the arrangement should be somewhat compact, so as to be easily governed by the eye of the mistress. The department designed as "kitchen," on this floor, might perhaps more properly be called "dining room," since there is another kitchen in the basement beneath it.

The second, or chamber floor, contains 4 bed-rooms, most snugly and ingeniously arranged.

It will be seen that the exterior of this cottage is covered with *shingles*, the lower ends of which are cut before using them, so that they form a pleasing pattern. They have been laid-on over a rough weather boarding, on which was fitted a coating of tar-paper, so as to make a warm and dry house; and are much more picturesque in effect than planed boards or "siding."

To the amateur of the *cottage ornée*, this is a highly interesting specimen, and will well repay a visit. Mr. PRENTICE deserves much credit for the various examples of ornamental cottages, which he has erected in the neighborhood of a city where rural architecture, of a tasteful kind, has been much neglected.

 FOREIGN NOTICES.

USE OF YOUNG MELONS.—I saw, a few days since, at one of our best market gardeners, of the *Faubourg Saint Antoine*, baskets filled with young melons, chiefly the imperfect aftergrowth of the vines. These fruits, which are of different sizes, from that of a hen's egg to that of an orange, are usually thought of no value; the smallest are not used at all, and the largest are generally placed by the children of the market garden, in the corner of a window frame until they become a little yellow, and are afterwards sold for a few cents to children, who eat them raw, without, I suppose,

any great pleasure to the palate, or any good to the stomach.

These young melons, however, as well as those which do not arrive at maturity in the autumn, are a most wholesome and delicate food, when eaten *cooked*, and prepared in the same way as cucumbers. [The French cook the cucumber much more than we do. Ed.] They are, indeed, far preferable to these last, not having the after-taste, which is so disagreeable to many persons. We have found them more delicate in flavor than the vegetable marrow, even when the latter is used, as in Eng.

land, when only half grown. If the use of this vegetable were fully known, it is probable that the gardeners would allow all the small ones to reach the size of an orange; their vines would be less exhausted, and they might realize from them an additional profit of some importance. I should even be disposed to think that, as the culture of the small green cucumber has been undertaken solely for the purpose of pickling, so several vigorous kinds of melon might be cultivated advantageously, in a simple manner, with a view to this new production. It is only necessary that it should be known, and this might easily be accomplished, if our market gardeners would take some of the vegetable to any well known *restaurateurs*, and engage them to offer them to their customers. *Revue Horticole*.

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CHANGES OF WEATHER INDICATED BY ANIMALS.—The common house spider, on the approach of fine weather, puts out its head and stretches its legs out of its hole; and this the farther, the longer the fine weather will continue. Against bad weather it retires farther back, and before more tempestuous weather it turns quite round, showing nothing but its hinder parts to the observer; thus acquainting him with the approaching storm. At the commencement of fine weather, the web with which it surrounds its corner is but of moderate extent; if the fine weather is to be lasting it enlarges it two or three inches; and if it do this several times consecutively, we may be certain that the weather will continue fine for some days. In winter they are as certain prognosticators of approaching cold. If frost and snow be coming on, they either seize upon webs already made, in which case obstinate battles often ensue, or they make new ones, and labor diligently at them.

If animals show signs of fear and uneasiness while the weather is very calm and close, it is almost certain that a storm will ensue. Rain may be foretold from the actions of various animals, as follows: When birds are seen more employed than usual in searching among their feathers for insects, which, on account of the *unusual currents of electricity* in the atmosphere, torment them. When sea-gulls, and other aquatic fowls, particularly geese, make a greater noise than usual. When swallows fly low, and seem to skim the surface of the earth. When pigeons return to the pigeon-house before accustomed time. When certain fish, such as porpoise, sport at the surface of the water. When bees do not quit their hives, or fly only to a short distance. When sheep bound in an extraordinary manner, and push each other with their heads. When asses shake their ears, or are very much stung by flies. When flies and gnats sting more severely and are more troublesome than usual. When a great number of worms issue from the earth. When frogs croak more than usual. When cats rub their heads with their fore paws, and lick the rest of their bodies with their tongues. When foxes and wolves howl violently. When ants quit their labor and conceal themselves in the earth. When oxen, lying together, frequently raise their heads, and lick each others' muzzles. When cocks crow before their usual hour. When domes-

tic fowls flock together and squeeze themselves into the dust. When toads are heard crying in elevated places. *Glenny's Almanac*.

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THE NECESSITY OF ATTENDING TO ALL SEEDLING CROPS.—Nearly all our new vegetables, and many other new and good subjects, have been discovered by accident. How many more, then, may have escaped than have been noticed? Acres of peas, cabbages, and other subjects, have been sown, planted, cut, and marketed, without so much as a single inquiring inspection as to their claims to notice on account of novelty. Probably some of the finest and most valuable improvements might have been discovered, had they been inspected at those critical periods which show off their qualities to the best advantage. But large growers look only to the general complexion of fields and large plots; they look to the general bloom, the general condition, and judge by the bulk as to the season for marketing. Probably, had the peas been examined at the proper time, there might have been one in flower a fortnight before the rest. Perhaps, if generally examined when in pod, before gathering, there might have been some as large again, or as long again, or half the height, or double the height of the rest, sufficiently distinct to be worth notice and marking, and growing separately another season. Perhaps among cabbages there might have been one more hearted, and ready for market a fortnight before the rest; a larger or smaller, or in some way distinct from the rest—for this has been the way new things have been found; but as they have been found without looking for, many of more importance may have been lost, because they were not seen, and went to market among the rest. When we consider the value of a new and good subject, we think it would pay any grower to pay a visit of discovery; not that he need go up and down every row of peas and cabbages, but he might go up and down every twentieth row, and cast his eyes right and left, to see if any one subject differed materially from the rest; to observe if colour, form, habit, or other striking difference distinguished any plant within sight; and if so, to mark it with a bush, or stick, or a tie of some kind, that it may be left standing when the rest are gone. In all the cabbage tribe this is very important, because the whole family is apt to sport; and it is these sports that have produced us so many excellent varieties, from the common ragged jack to the finest Brussels sprouts. Besides, there are so many good points wanting. Hardiness in the broccoli tribe and the cauliflower—earliness, lateness, size, flavor, beauty, colour,—in short, there is no end or limit to the varieties there is room for in the Brassica family; and much of which that is desirable may have existed and been overlooked, and lost again, all for want of timely inspection. Those who set to work to obtain new varieties by crossing, are quite out of this range of observation; it does not apply to them, for they look anxiously enough for the result of their labors; but many a really great improvement might have been discovered in the midst of things grown in the ordinary way; and without any such motive, we know that

a pea has been accidentally seen in a field of many acres with a flower larger or smaller, or earlier or later, than the rest; that it has been marked, found different, perhaps better, perhaps worse, than the rest, but at all events different; it has been marked, and all the produce saved and sown by itself. It has proved better, has been named, highly spoken of, and sold out at a large price; and but for an accident it would have shared the fate of the rest, been picked and marketed green, been eaten and destroyed. It is impossible to say what may not have been attained had all that has been raised new been saved, instead of going as the rest have gone, and never been heard of. We hope there will be a little more attention paid by market gardeners, for they are as much interested as any body, and have more opportunities than any other class of men. *Hort. Magazine.*

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THE SUNFLOWER.—Among the old-fashioned subjects that seem pretty well banished from modern gardens, the sunflower may be placed; yet the value of that plant is scarcely known. It is true that the same qualities are possessed by other plants, and this, in a great measure, prevents the development of the properties which belong to the subject of our notice; but they ought not to be lost sight of, for there may be circumstances under which its whole value may be appreciated. Let us consider first, then, the uses to which the plant and its parts may be applied. First, then, it yields abundance of seed, which is equal to any, if not superior to most food for poultry. Secondly, the seed yields abundance of oil, and the oil-cake is food for cattle. Third, the plant is full of very strong fibre, capable of being worked into coarse materials cheaper than any other fibre we are acquainted with. These points are well worth the consideration of emigrants, who should on no account neglect to take seed with them, for they are likely to grow well under circumstances unfavorable to many other plants. It is one of those subjects which will grow anywhere, and produce a crop. There may be differences between light and heavy crops, according to the culture, but there will always be a crop, even on land that would bring nothing else in; at any rate, very little else. To grow sunflowers in perfection, sow thinly all over the surface in the middle of April, in a bed four feet wide, and as long as you require, according to the quantity of seedlings you wish to plant out. Sow thinly, and if the weather be dry, water it even before it is up. It will soon be above ground, and if there are any so close together as to prevent them from growing well, thin them in those parts; but as they are all to be planted out as soon as they have got four rough leaves, they are not to be thinned much, except where the seed has been huddled together by accident. They must be weeded as soon as they are up, and kept clear of weeds until they have grown strong enough to plant out. If a showery time

comes, you may, for the sake of the great advantage of wet ground, plant out smaller than we should propose as a general rule; and so, instead of waiting for four rough leaves, plant them out with only two. On the other hand, we would wait till the last day if there were any prospect of rain, rather than plant out in dry weather. Let the ground be dug or ploughed, and harrowed, ready for planting out, and plant them out in rows three feet from each other, and the plants two feet apart in the rows. Let them be dibbled in, the same as cabbage-plants, except that they must not be put in deep. If they are planted on a large scale, it is as well to plough a furrow every three feet, and plant at the bottom of this furrow; and unless it be wet weather, they must be watered in; but this labor can be got rid of by planting in rainy weather. In about a month, when they have become established, and the weeds have grown up pretty thickly, the crop must be well cleared. After this, the plants will overpower the weeds, and they will want no more care till nearly in flower, when five or six of the best advancing buds may be selected, and the buds at the ends of all the other branches may be pulled off. This has the effect of driving all the strength of the plant into a few heads of bloom, and sending all into flower at one time, otherwise the sunflower will begin with the crown bloom, and contain a succession of lateral flowers for months, so that one-half never ripen the seeds, and the early ones are weakened by the constant opening of the side blooms. There is not a single crop so inviting to small birds; as soon, therefore, as the seeds ripen, there must be a continual watchfulness; people sent round with baskets to gather the seeds as they ripen, and boys employed to drive away birds as the harvest approaches. The heads are not to remain on the tree until the seeds are all black, but as soon as the seeds are full-grown, and the outside ones are turned black, say two-thirds towards the centre, they are fit to gather. They should be placed in the sun upon cloths and perfectly dried, when they fall out of themselves; at all events, children may be employed to rub them out, and they are as easily cleared as any seed that is grown. With regard to the plants, they may be treated as hemp and flax for the purpose of using the fibre, or may be burned on the ground after drying, that their ashes may be spread; but the seed alone, whether used for its oil and cake, or as food for cattle, pigs, and poultry, will repay well the cost and trouble of cultivation. *Ibid.*

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A NOTE FROM PARIS.—I yesterday spent a long time in the *Jardin des Plantes*. With the exception of one hill well planted with all sorts of evergreens, and one superb cedar of Lebanon, the largest in France, it is not particularly interesting in a horticultural point of view.

I saw there the *Mother Paulownia*, every termi-

nal branch of which, ending in a flower skeleton (or group of buds) for next spring's bloom. There are two trees here twenty or thirty feet high, the leaves not larger than those of the Catalpa; and exceedingly like that tree, in the stiff and brittle looking growth. Yours, *H. W. S. Paris, Oct. 27, 1848.*

DESTRUCTION OF RATS AND MICE.—There is no need of demonstrating how sadly troublesome these two species of *ronzeurs* are to our young plantations of all sorts, and especially to the seed beds. Many modes have hitherto been devised to destroy them, none of them quite satisfactory. The following two methods are however certain to effect the purpose.

Cut a cork into very small pieces, and fry the latter in lard, butter, or drippings; place it here and there in little heaps in the garden. The rats and mice swallow it with avidity, and soon disappear from the garden, killed by this indigestible substance. Bits of sponge fried in the same manner, produce the same effects still more promptly. The same dose may be used with equally good effect against those wandering cats and dogs, whose gambols are so destructive to the good condition of glass-ranges or newly planted beds. These substances are easily obtained and made ready for use, and they offer none of the inconveniences and dangers attending the employment or arsenic. *Flora des Serres.*

ABERDEEN BEE-HIVE STRAWBERRY.—This sort, so much vaunted in the newspapers by the originator, is likely to prove a complete "humbug." Several English gardeners state, in the *Gardeners' Chronicle*, that it is only the old *Grove-end Scarlet*, a well known sort; and we notice the following note in M. VAN HOUTTE's Catalogue just received from Ghent:—

"This variety, pompously announced, as a new wonder, by Mr. JAS. MATTHEWSON, of Aberdeen, appears to bear nothing but fruits of inferior quality. I possess a considerable quantity, and I offer plants gratuitously to any of my correspondents, who may desire to try its culture. I will on the other hand, indemnify fully those to whom I may have sold this strawberry."

LARGE FRUITED MONTHLY RASPBERRY.—This new variety has been exhibited before a Horticultural Society, and at various places in London this autumn, "the canes loaded with clusters of fine fruit on every lateral from base to summit. It is likely to prove a decided acquisition. MR. RIVERS (of the Sawbridgeworth nurseries, England,) we observe, offers plants for eighteen shillings (sterling) per dozen.

NEW FOREIGN GRAPES.—We copy the following description of new varieties of grapes (by Mr. THOMPSON,) from the *Journal of the Horticultural Society of London*. It will be very desirable to introduce them into this country, especially the sort last named. Ed.]

NOTES ON SOME VARIETIES OF GRAPES FRUITED IN THE GARDEN OF THE SOCIETY IN 1847.—1. SAHIBEE. A Deccan Grape, sent to the society by Colonel Sykes.

A large handsome bunch, sometimes slightly shouldered, berries large, oval, white, with a rose-colored tinge next the sun. Pulp tender, juicy, sweet, without any muscat flavor, pleasant, but not equal in richness to the Sweet-water.

The vine, notwithstanding the hot climate from which it was imported, bursts soon into leaf; and as the fruit ripens early, it may prove eligible for easy fruiting.

2. VERDAL. The foliage of this resemble, that of the white Frontignan; but the fruit is like that of the Royal Muscadine; yet, independent of its properties as a wine grape, it appears deserving of cultivation. It ripens soon after the Royal Muscadine.

3. REEVES' MUSCADINE. This was imported from the Cape of Good Hope, without a name, by John Reeves, Esq., and as it appears worthy of cultivation, it has been designated as above.

Bunch large, shouldered, stalk thick, pedicels short and stiff, berries oval. skin yellowish white, rather thick, pulp melting, juicy and rich. A good grape, ripening quite as early as the Black Hamburgh, under similar circumstances.

4. BLUSSARD NOIR. From Messrs. Baumann. This may be described as a smaller, earlier, and more sugary variety than the Black Hamburgh, which, in other respects, it resembles.

5. GROS GOMMIER DU CANTAL. This was sent to the Society from Paris, by Mr. Francis Rauch. A very strong-growing variety, with remarkably short-jointed wood; leaves deeply serrated, and occasionally lobed, veins and mid-rib on the under-side somewhat rough with bristly hair. Bunch large, with a strong stalk; berries very large, upwards of three inches in circumference, round, and of a red or grizzly color, pulp juicy, with a flavor as if between the Black Hamburgh and white Sweet-water. The latter being by itself a bad setter, and on that account not unusually fertilized by the Black Hamburgh, it is probable that this variety is a cross between the two; at all events, if this be imagined, a correct idea of the grape will be obtained, for it seems to partake of both. *Jour. Hort. Soc. vol. 3d, part 4.*

DOMESTIC NOTICES.

PRIZES FOR NATIVE GRAPES.—We find it stated in the newspapers that Mr. LONGWORTH, of Cincinnati, has offered at a late meeting of the Philadelphia Horticultural Society, the following premiums for seedling varieties of our native grapes, viz:

\$50 for a seedling Catawba, the berry white, blue, or black, and equal in flavor to the original.

The same prize for one of like color and quality from the Ohio grape.

The same prize for one of like color and quality from the Herbemont grape.

The same prize for one of like color and quality from the Missouri grape.

These are temptations to skilful and patient cultivators—and as nothing in the way of new fruit is more desirable than valuable new native grapes, we trust Mr. LONGWORTH's spirited offer will set fruit-growers and gardeners at work.

There are two modes likely to insure success, and, if they are attended to, it will not be difficult to raise new seedling varieties greatly superior to any native sorts now cultivated.

The first of these is to select those berries which show a tendency to *vary* from the original shape and size—and especially those which are *larger*. It is not unusual, especially on vines which bear but few bunches, to find some berries nearly double the size of the others upon the bunch. If the seeds from these berries are selected for planting, the chances of getting an improved variety are greatly increased. In order to proceed more scientifically, and with more *certainly* of improved seedlings, you must resort to *crossing*.

When your Catawba, or other native grapes, are coming into blossom, watch them closely, and as soon as they expand, cut out the anthers with a small pointed scissors; then go to a foreign vine, of some first rate sort—say Black Hamburg, and take some pollen from blossoms in *full bloom*. You may put it in a vial and keep it a month if the foreign vines happen to bloom first, which they will do if they are under glass. The flowers of the native vine being ready (say 2 or 3 days after they expand,) take up some of the pollen from the foreign grapes on a camel's hair brush, and apply it to the pistils in the blossoms of the native grape, from which you previously cut out the anthers. The fruit produced will be a cross between the two, and the young plants afforded by sowing the seeds of their fruit, will, in all probability, partake of the delicious flavor of the foreign grape, and the hardiness of the native. We must add, that when the anthers are first cut out, the bunches should be enclosed in a fine muslin bag to prevent the blossoms being fertilized by the pollen of other blossoms on the same plant.

This is the way in which nearly all the superb new varieties of plants are originated abroad, and it may be applied to the grape doubtless with the same good results.

THE POMOLOGICAL CONVENTION.—In a late number of *Bement's Journal of Agriculture*, (Albany,) some exceedingly amiable and pleasant writer under the name of "Fidelius," (or "Fiddle-de-dee-us," we forget which) indulges in a strain of *flattery* regarding the officers and committees of this convention, which amuses us not a little.

He torments his imagination, however, with the idea of the overpowering influence of some *Eastern clique*, which he thinks managed all the affairs of the meeting. What will our western friends, including Mr. ALLEN, of St. Louis, (who if we mistake not, talked and acted for his constituents as a sturdy western man should,) say to this? What will that honest "Jersey Blue," Mr. HANCOCK, or the quick witted BARRY, of Rochester, all of whom were on the spot, and "wide awake," say to it? Truly, there were many men there who would not be easily managed. But *wz*, yes, there's the rub, we were actually a delegate from the Massachusetts Horticultural Society! "Heads and blood!" this, truly, smells horribly of gun-powder. Softly, unknown friend "Fidelius," this was an innocent *compliment*, only do not let it, like Banquo's ghost, "o'er come you like a summer's cloud!" We went as a delegate from the *Orange county Agricultural Society*.

We are honestly grieved to find that "Fidelius" cannot approve of the doings of the Convention. We are confident that as he grows *calmer* he will think better of it. To our own humble apprehension, it was the most intelligent and the most satisfactory meeting of horticulturists ever held in America. Numerous letters, that we have since received from all parts of the country, from members of that Convention, expressing their desire to continue the good work commenced there, by all the means within their reach, prove to us that it has awakened a new, more intelligent, and wider interest in Pomology, than has hitherto existed on either side of the Atlantic. If "Fidelius" will only throw aside his prejudices, and labor in common with the members of this Convention, who have the public good at heart, then, perhaps, shall we all arrive at this object more speedily.

The *Genesee Farmer*, a journal of very large circulation, and very ably conducted, represents, we think, the general feeling of the country regarding this convention, in an article on this subject, from which we quote the following:—

"This Congress may truly be regarded as the most important public movement yet made on this

continent, in connection with pomological science. It was not, nor could it have been expected to accomplish much beyond a complete organization. This is now effected. The appointment of the **STANDING FRUIT COMMITTEE**, consisting of the most skilful pomologists and fruit growers in the United States and Canada, is a grand movement; and if the convention had accomplished this alone, it would not have assembled in vain. This committee, after a year of research, cannot fail on re-assembling, to make such a report as will be of infinite service to the country.

The proceedings and discussions throughout, with one trifling exception, were characterized by rare harmony, good feeling, and enjoyment. Indeed it was not only an important deliberative body, assembled to promote the ends of science, but a delightful re-union of the most tasteful and intelligent cultivators of the soil from all parts of our country. The collection of fruits was imposing and beautiful, and afforded at all intervals of business, pleasant and profitable themes for discussion and remark.

Aside from the benefits to be derived from the public discussions and future action of this body, every member of the convention must have felt himself amply repaid for the trouble and expense attending it, by the rare opportunity it afforded for the private interchange of facts, opinions, and specimens of fruits, as well as the forming of new social and business relations. These are all invaluable acquisitions, and could not have been well obtained under other circumstances.

We should be wanting in duty, were we to neglect here, as a delegate, to express our acknowledgments to the American Institute for the liberality and kindness extended to the convention, in preparing a suitable Hall, in paying expenses on all fruits sent to it, and in admitting all the members free to their exhibition in Castle Garden; to the respective committees of arrangements who discharged their arduous duties in the most satisfactory manner; and to the distinguished President, **MARSHALL P. WILDER, Esq.**, of Mass., whose rare ability, forbearance, and impartiality in the chair, greatly facilitated the transaction of business, and secured that harmony of which it has been our pleasure to speak." *Genesee Farmer for Nov.*

HORTICULTURAL TRAVELLER.—**MR. BARRY**, the well known and intelligent editor of the *Genesee Farmer*, has just sailed for Europe, on a horticultural tour of a few months. He proposes not only to examine the points in gardening most interesting in England, France, and Germany, but to bring home the most interesting novelties, especially in hardy trees and shrubs, to enrich the nurseries at Rochester.

MR. COLMAN, the Agricultural tourist, has returned to this country since the issue of our last number. We presume the last number of his *Re-*

port will soon be forthcoming, and we have no doubt the public will be favored with some other work containing the rich materials which **Mr. C.** must have collected abroad, with his unusually excellent opportunities.

LABELS FOR TREES.—A correspondent recommends zinc labels, and gives us the following recipe for making ink suitable for writing upon them:

Take half a drachm of lamp-black, one drachm of verdigris, one drachm of sal-ammoniac (pulverized) and dissolve them in ten drachms of water. This will form a permanent ink, which may be used for writing upon the strips of zinc, and will last as long as the labels.

CURIOUS POMONAL FREAK.—There is an odd example of departure from the ordinary laws of nature, in an orchard of one of our neighbors, **WM. DENNING, Esq.**, of Presque Isle, Dutchess county. The tree is one of a row, all of which are *Rhode Island Greenings*. This particular tree also bears a proper crop of Rhode Island Greenings, except on one large branch, which for two or three years past has borne *Russet* apples. The latter apples are, in size and form, Rhode Island Greenings, but the skin is perfectly covered with russet, and the flesh, though of the normal color, is drier and tougher, like that of most russets. The limb which has *sported* in this way, is larger than one's arm, and, on examining it carefully, we find no evidence of its having been grafted; and **Mr. DENNING**, who is a most skilful and sagacious orchardist, informs us that it has not been. Since the foliage, on this branch, and also the form and size of the fruit are quite those of the rest of the tree, it would appear that this singular russet dress has been assumed by the fruit of this branch in defiance of the usual habits of the variety.

COE'S LATE RED PLUM.—We observed also in the garden at Presque Isle, a tree so loaded with a fine crop of *Coe's late Red Plum*, that the branches bent almost like those of a willow. The fruit was then (Oct. 18th) ripening, and was excellent in flavor. This is the latest good plum for our latitude. It is even better a little farther south, and to the northward of this it does not ripen well.

THE MELON APPLE.—Among the remarkably fine fruits shown at the Pomological convention in New-York, some specimens of this new apple, described in our last volume, were greatly admired. They were from Rochester and Macedon, N. Y. Its beauty, as well as its unusual juiciness and freshness of flavor, will make it much sought after as a dessert fruit.

THE FRUIT COMMITTEE.—We observe a special blunder in the enumeration of the *special fruit committee*, in our account of the New-York Pomological Convention, given in the last number.

The names of two gentlemen were unintentionally omitted, and those of two others given in their place. The correct list is as follows: THOMAS HANCOCK, J. J. THOMAS, ROBT. BUIST, ROBERT MANNING, HERMAN WENDELL, JOSIAH LOVETT, L. C. EATON, GEO. GABRIEL, and A. J. DOWNING, (*Chairman*.)

A circular of suggestions is being prepared by the chairman of the *General Fruit Committee*, which will soon be forwarded to the members of the committee in all the different states.

PINE-APPLES BY STEAM.—A manufacturer in Philadelphia, is said to have hit upon a novel mode of growing pine-apples. He introduces waste steam under the bottom of the bed into which the pines are plunged, and thus grows and ripens the fruit very perfectly under our hot summer sun, without the aid of glass. Owing to this full exposure to the air, the flavor of the fruit is far superior to that of pines ripened in the hot-house.

WOOD ASHES vs. INSECTS IN THE SOIL.—MR. DOWNING: I have been in previous seasons much plagued by grubs and insects in the soil, so that I was obliged almost to abandon the cultivation of carrots and some other vegetables.

Two years ago I gave my plants in the kitchen garden a heavy manuring of fresh wood ashes. On those portions so dressed, I have since cultivated crops of vegetables without the least difficulty, the worms having entirely disappeared. Yours, &c. M. R. W. Jersey City, N. J., Nov., 1848.

BITUMINOUS COAL ASHES.—Dear Sir: I have been in the habit of using the ashes of *Liverpool* coal as a manure for three years past, and find it of great value.

Applied to trees of all kinds, and especially to fruit trees and evergreens, it acts wonderfully well. Indeed, I now use it wherever I plant a tree or shrub, mixing several shovelfuls with the soil put immediately about the roots, and with the most evident benefit to the subjects to which it is applied as compared with those not so treated. As those ashes are frequently thrown away, would it not be well to say something on this subject. Yours *A Philadelphia Subscriber*. Nov. 1848. [Bituminous coal ashes are very valuable in organic manures for all trees and shrubs. We find that evergreens thrive particularly when treated with them. Ed.]

CEREUS CRENATUS.—I would recommend to your notice and that of your readers, the *Cereus crenatus*, as one of the most beautiful of the Cactus tribe, and certainly the finest recent acquisition I have seen to our succulent exotics.

It is a remarkable plant. The flowers are white, large and magnificent, rivalling those of the night blooming *Cereus*, while they differ by opening in the day time. It received the highest medal at

the Chiswick exhibition, in June, 1845, offered for new plants. Its native country is Honduras. Although similar in some respects to *Epiphyllum latifrons*, it proves distinct, and far more desirable, because the flowers open in the day time, and continue open for five or six days. In addition it is deliciously sweet-scented, and cannot fail to be highly prized. The plant grows about two feet high, with large spreading branches, usually flat and broad, of a fine bright green, with large rounded teeth along the edges, and a prominent mid-rib. The flowers are produced near the extremity of the shoots, and have a slightly curved tube about four inches long, and numerous pale cream-colored petals of a delicate texture, forming a circle several rows deep, about five inches in diameter, from the centre of which a great number of filaments are protruded, about two-thirds the length of the petal. The bloom buds are of a brownish-pink before expansion. Yours very truly, WM. W. VALK, M. D. *Flushing*, L. I. Oct. 31, 1848.

LATE AUTUMN FLOWERS.—There are peculiar points in gardening, that ought to be spoken of at times, as worthy the attention of your readers. I have one such to mention at present. On the north side of my garden, I have a tight wooden fence seven feet high, which of course gives one a warm sheltered border on the south side of it. Along a part of this fence I have this south border planted with *Chrysanthemums* (*Artemesias*), *Salvias*, *Bourbon Roses*, and the like. Generally you know, these are cut off at the close of October by sharp frosts. But by planting them close to the fence, tying up the shoots as they grow, and then having a coping or hood of boards (say eighteen inches wide) projected over them from the top of the fence, from which I hang mats every cold night, I have this border in full bloom and beauty, often till near Christmas. You have no idea how superbly the Chinese *Chrysanthemums* grow and bloom in this way, as compared with those in pots; and they continue in flower a great length of time. The walk which runs along this border is a cheerful and ever gay one late in the autumn, after all the rest of the verdure and bloom of the garden has passed away. Respectfully yours. *Chrysops*. Brooklyn, N. Y., Nov. 11, 1848

TO PREVENT THE MILDEW ON PEACH TREES.—Mildew infests many kinds of plants, and assumes many different appearances. It attacks peaches and nectarines, particularly the Tillotson, Early June, and other serrate varieties, seizing the tender points of the shoots, which are quickly destroyed.

It has been ascertained by naturalists, that the mildew is a species of fungus which attaches itself to certain plants, when they are in a peculiar state of growth favorable to its nature. If this be so, it cannot with propriety be called a disease, though

its effects are equally destructive. Luckily, it is a vegetable of a more delicate constitution than the plant it fixes upon, because it very soon yields to an application of soap suds, or to the following mixture:

Slack two pounds of fresh lime, with about six gallons of water; after it stands 16 or 18 hours, pour off the pure water and mix it with four gallons of soap suds. Syringe the trees once or twice with this mixture, at the time the mildew makes its appearance, and in a day or two it will disappear. This mixture appears also to nourish the trees, and give the leaves a verdure, and a luxuriant appearance superior to anything I ever before witnessed. This I have practiced several times with great success.

To prevent the mildew in the month of May, syringe your trees with soap-suds, then dust them well with common sulphur; this prevents any attack of mildew. *E. Dagge. Rochester.—Gen. Farm.* [This is valuable information—for it is well known that many of the highest flavored peaches are serrate-leaved sorts, more or less liable to have the points of the young shoots attacked by mildew. Orchardists may feel inclined to abandon them for more thrifty growing sorts, but amateurs will not grudge a little pains to obtain fruit of such delicious flavor as that of the old "Emperor of Russia." One fruit of that peach, to a real pomologist, is worth a ship load of "Malagatunes." *ED.*]

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HEDGE OF THE SOUTHERN ROSE.—The best hedge in the United States, extends a mile along the highway on a plantation of 3,000 acres, near Augusta, Georgia. It is the *Cherokee Rose*, which every season, when in full bloom, presents a magnificent floral spectacle, and fills the atmosphere with delicious perfume. No animal, without wings, can get over it or through it. *Southern Cultivator.* [The Cherokee Rose is a most beautiful evergreen climbing rose, highly ornamental in all respects. We have attempted its cultivation here, but unfortunately it is too tender for a northern winter. *ED.*]

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STEWED CELERY.—Cut the blanched or white portion of the Celery stalks in pieces about an inch in length, and put them in a saucepan over the fire with milk and water, in equal proportions, barely sufficient to cover them; add a little salt, and let them stew gently until perfectly tender. Then take out the Celery, add a piece of butter to the liquid it was boiled in, thicken it slightly with flour, pour it over the Celery and serve it up.

[This excellent mode of cooking Celery may not be known to all our readers, and we recommend it, from long experience of its merits, as a delicious dish. *ED.*]

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GRAPES IN A COLD VINERY.—We have already mentioned the magnificent Black Hamburg, and

other foreign grapes, shown by G. R. RUSSELL, Esq., at the annual exhibition of the Massachusetts Hort. Society. In a private letter received from this gentleman since, we find some remarks on their culture, which we venture to extract for the benefit of our readers:

"My Vinery was constructed in the spring of 1846. It is a double, or span-roof, cold house, [i. e., without fire heat.] It is one hundred and fifty feet long, twenty five feet wide, and contains 94 vines—principally Black Hamburg, with, for variety, the Frontignans, Royal Muscadine, Muscat of Alexandria, Frankendale, Syrian, White Nice, Chasselas, &c. Most of the vines were two years old when set out, with the exception of the Muscadines, which were one year, and the Muscats of Alexandria, which were started from single eyes the same year.

The border, which is 16 feet wide outside, and 8 feet inside, the house (making twenty-four feet borders on both sides of the vinery,) is three feet deep. It was made with great care, and is composed of the top-soil of a pasture field, street-sweepings from Boston, stable manure, bones, oyster shells, &c. It is well drained on all sides, and is devoted *exclusively* to the vines. There is a cistern in the centre of the house, built of brick and cement, 50 feet long, 5 feet wide, and 4 1-2 feet deep, which is filled from the roof. This is indispensable—particularly for the inner border.

I had, at first, some misgivings as to the success of the cold-house, as many persons thought the result doubtful. It is not a new thing about Boston, but it was supposed that the favorable result of partial trials might be owing to peculiarly favorable positions. I am now convinced that there is no difficulty in raising grapes, as far north as this, in a cold house, provided it is placed in a dry situation. [Cold vineries are perfectly successful on the Hudson. *ED.*]

The Grapes I sent to the Horticultural Exhibition, were a fair sample of all in my house. I did not think of sending any until a few days before it took place, and my gardener was at a loss to select, leaving as good bunches on the vines as those placed on the tables of the Society.

As I have made it a point not to *press* the vines, not allowing them this year, to bear more than 4 bunches each, the fruit has probably been larger than it may be when in full bearing. I am respectfully, your obedient servant. *G. R. Russell. West Roxbury, Mass., Oct. 13th, 1848.*

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OSAGE ORANGE HEDGES.—We are glad to find that this capital hedge plant, so easy of culture, so rapid in growth, so strong in its protective thorns, and so handsome in its foliage, is rapidly rising in public estimation. Miles of it are already planted about Cincinnati; and since it has been found hardy in the hedge form as far north as Boston, cultivators are trying it all over the northern states. The following practical remarks by our able cor-

respondent, Professor TURNER, which we copy from the *Prairie Farmer*, will be read with interest. ED.

"In relation to your inquiries about the Osage Orange, I know not what to say more than has already been said in the *Horticulturist*, the *Prairie Farmer*, the *Ohio Cultivator*, the *Sangamon Journal*, and, in short, almost every paper of note that takes any interest in agriculture in the United States. All the writers in all these papers who pretend to know anything about this plant, agree that it is in all respects unrivalled as a hedge plant in quickness of growth, the stubbornness and density of its branches and thorns, and the extreme beauty of its foliage, flowers and fruit. They all agree that it will prove perfectly hardy in any climate where the 'Isabella Grape will ripen in the open air.' And there are hedges of it standing in states from the latitude of Boston to the mouth of the Rio Grande

"Hundreds of rods of it have been put out in Ohio, even amid their dense forests of timber, and it is doing first rate. There are pieces of it in this state and in Missouri, quite to the north of us, which are doing finely. I have had the plants on my ground ten years, and have them now of almost all ages and sizes, from ten years old to one month.

"I have one piece of hedge three years old next fall, that will turn any stock I have, from the smallest chicken, or rabbit, to the horse and ox. I have received letters on the subject from all parts of the Union, and have not received one unfavorable account from any one who has made a proper trial, with plants raised from the seeds in this climate. In some one or two instances, plants brought from the south, or allowed to freeze the first winter, have been injured afterwards, as of course might have been expected. I have some two or three miles of hedge put around my *pet* farm and orchard, and have this spring enclosed my house lot of four acres on College Hill. In transplanting thousands of plants this spring, I have had to replace only three. All who have seen my hedges intend to get them next spring; especially the English, who were accustomed to hedges in the old country, are quite taken with it. They say there is nothing in England that can be compared to it as a hedge plant. The desire to get it here is great. I shall go next week and break eighteen or twenty miles of new prairie around some lands in Haverly, for which we shall prepare plants, and set them next spring *without any protection*. About six miles of this fence belongs to me, and the rest to others. I have agreed to guarantee all the plants, if set according to my directions. We expect at least to double the value of our lands by this operation in three years. I have an application from another man to put out eleven miles for him in the same way. Another thinks he shall want two hundred miles, as indeed he will, if he fences all his lands.

"As to its cost: it will not cost more than 25 to 50 cents per rod, to make the best hedge in the whole world for all farming purposes—according to the kind of fence made. For one kind it will take 1,000 plants, and from that to 2,500 for every eighty rods of fence. And had I the time, I would

agree to fence the whole Mississippi valley for 25 cents per rod of one kind, and 50 cents per rod of the other kind of hedge, all complete and all cost included, and to perfect the whole in three, or at most four, years from the time the plants were set in the hedge. I find by experience that a mile of fence can be set much easier and quicker than I had supposed. My Englishman, with a boy to put in the plants, set fifty rods per day, after the plants were prepared, which the nurseryman ought always to do before he sells. But there is a right and a wrong way, after all, in this as well as in other matters; and all those foolish methods of sowing the seeds in the hedge row, trimming at two years old—setting out little, feeble, ill-assorted plants, &c. &c., will prove worse than nothing.

"On the whole, my advice to you is to prepare as much ground as you can—select good plants, and, if possible, put your farm all under this fence next spring. Before that time, I shall write a pamphlet, giving specific instructions for setting, cultivating and trimming the hedge until it is complete, or three years old; or if not, I will keep you and your friends duly informed as far as needful; so you need not have any fears but you will get a first rate hedge, which will double the value of every acre of land you put it around. Plants will probably be cheaper next spring than they will be again for ten years. The demand will increase every year, and but few hereafter will raise them at the prices they will probably bring next spring; besides the comfort and convenience of having all your stock and fruit of all kinds entirely secure from all depredators and thieves, is too great to be postponed without a better reason than a probable cost of 25 or 50 cents per rod for a fence lasting as time, and beautiful as the fabled walks of the Elysian fields. If you wish any further information on any particular point, I shall at all times be happy to communicate with you. J. B. Turner. *Illinois College, June 20, 1848.*"

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ERRATA.—In *Notes of our Foreign Correspondent*, in our last No., we find the following errors: For "Ourley," p. 244, read "Ouchí," and p. 245, for "Three Mons," read "Three Moors."

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ANSWERS TO CORRESPONDENTS.

FRUIT CONVENTION.—J. W. B. We regret not having had a critical examination of your specimens, (which were not brought forward,) as well as that of several other friends, who were contributors. The labor of organizing, canvassing lists of varieties, &c., at this first meeting, necessarily occupied a large part of the time of those upon the Fruit committee; and the fact that the committee were not able to examine new fruits till the afternoon of the third day, (when some of the contributors had left,) rendered this part of their labors less complete than we could have wished. Another year, with the organization complete and in working order, it will be much easier to accomplish all efficiently. It is, indeed, surprising how much was really done.

MANURES.—*B. Williams.* You should apply guano, to obtain its full benefit, only where the plants are in a *growing* state. *T. G. Y.*—(Walworth, N. Y.) A light top dressing of leached ashes is highly beneficial to strawberry beds. We have no doubt that copperas may be substituted for oxide of iron in preventing the leaf-blight; but experience is wanted as to the quantity. We would advise you to use leached ashes heavily, as a manure in preparing your seed-beds for pears, and see if this will not remedy the evil.

PLUMS.—*D. D. J.,* (Hamden, Ct.) If you have a heavy soil, take the following six kinds: *Early*—Imperial Ottoman, Yellow Gage; *medium*—Bleecker's Gage, Jefferson; *late*—Coe's Golden Drop, Frost Gage. We do not know the "Potter" Plum. The Canada Plum makes a good stock for slow growing varieties; but many sorts out-grow it, and this renders the tree short lived. The *stocks* generally preferred for working plums on, are those raised from seeds of the common blue "*Horse Plum*." There is also a yellow variety, well known and largely cultivated in western New-York, which gives good stocks. We do not know its name. The Apricot, as we find by experience, gives better flavored fruit, and is more hardy when worked on the Horse Plum stock than when budded on Apricot seedlings. *J. F.*—The three best late plums for Pennsylvania are the following: Coe's Golden Drop, Coe's Late Red, and St. Martin's Quetsche.

APPLES.—*J. Fulton,* (Pa.) Winter apples, to keep long, should be picked from the tree before frost, and carefully laid upon the floor, *by hand*, in an airy loft or out-building. Here they should be allowed to lie a fortnight; after which, on a dry day, they should be put up in barrels. The latter should be stored in a cool dry cellar; the cooler the better, so that severe frost does not enter.

VINERY GRAPES.—*A Connecticut Subscriber.* The grapes about Boston are chiefly pruned in the spurring-in mode; and a good deal of recent observation inclines us now to recommend this as the preferable mode for this climate. Whether the vinery is a cold one or not, does not affect the pruning; the same rules apply in either case. In cold vineries it is better to plant the vines inside the house, but with the front wall supported on piers, or open below the surface, so that the roots can pass freely into the border outside. *R. W.*—(Baltimore.) Plant Black Hamburg, Chasselas, Musqué, Grizzly Frontignan, and Muscat of Alexandria,—four of the most delicious grapes.

UPLAND RICE.—A friend at Cincinnati desires information, regarding the growth and culture of this plant. Will any of our correspondents, familiar with it, communicate with us on this subject?

CHERRIES.—*S.,* (Philadelphia.) Coe's Transparent Cherry is very beautiful and delicious,—

one of the most delicate flavor for the dessert; it is in the way of Belle de Choisy, but finer. *T. G. Y.*—The great *Bigarreau of Mezel* is already in the possession of dealers in this country. Several of the larger nurseries can, doubtless, furnish you a tree in the bud. *J. F.*—For three of the best *late* cherries, take Sweet Montmorency, Buttner's Yellow, and Belle Magnifique.

PEARS.—*A New-Bedford Cultivator.* Louise Bonne de Jersey, (on quince,) Heathcot, Lawrence, and Flemish Beauty, will, we think, all do well: on the north side of a high wall in your climate, and will bear good crops if the soil is well drained and prepared. *D. D. J.*—Pear seeds must either be sown in the fall, or kept in earth or sand, (so as to prevent their losing their vitality,) till spring.

RED SPIDER.—*H.,* (New-London, Ct.) The most effectual remedy, (says Buist,) is a thorough syringing with water *under* the foliage. This being done to the plants infested, every evening, will effectually subdue and banish them.

PLANTS IN CELLARS.—*W. R.,* (Milwaukie.) Oranges, lemons, pomegranates, and hydrangeas, may be kept in good condition, in any cellar where there is a little light, and where the thermometer does not fall more than three or four degrees below the freezing point. But they should be kept *quite dormant*, by not watering them more than once or twice a month, and then only moderately. Admit air freely to the cellar every mild day in winter, when there is no frost.

DWARF TREES.—*Y.* Dwarf pears and apples may be planted from six to ten feet apart, as you have room to spare. They are not so long lived as when on pear roots, but have other great advantages,—such as coming very soon into bearing, occupying a small space, and thriving in many soils where pear stocks will not. They come into bearing as soon as they get established. It is not necessary to bud them *close* to the ground; though it is better that the junction should not be more than four or five inches above it.

BOOKS.—*H.,* (Marietta, O.) We shall give a list of the most desirable horticultural books in our next. The American edition of Lindley's Theory of Horticulture is out of print. The "Tree Lifter," is an English work, of little or no practical value. *W. H.*—(Philadelphia.) Consult London's Encyclopedia of Trees and Shrubs. The "Guide to the Orchard," by George Lindley, is the best English work on fruits.

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* * * Correspondents who are *subscribers*, will hereafter find replies to any questions on subjects within the scope of this journal, in this department, (unless otherwise requested)—and all queries put in a *brief shape*, and sent to us *free of postage*, shall receive attention. *ED.*

MASSACHUSETTS HORTICULTURAL SOCIETY.

The Twentieth Annual Exhibition of the Massachusetts Horticultural Society commenced in Faneuil Hall, Sept. 19th, at 12 o'clock, M., and was continued the following days.

A more magnificent collection of Fruit was never before presented to the public eye for inspection in this city, and we doubt whether it has ever been equalled in this country, or surpassed by the exhibition of any Society in Europe. As to quantity, it was so great that six large tables, the whole length of the hall, were hardly sufficient to contain it. The variety of Pears was immensely large, probably not much if any short of three hundred kinds. Of these, however, there were many sorts that were of no value in the exhibition only to show cultivators that they were not worthy of a place in their grounds. It is impossible for the Committee of Arrangements to designate the best specimens and the best varieties: we can only say, that large dishes of perfect fruit, thickly studded the tables.

The display of Apples, too, was without a parallel—embracing a very great number of varieties, some of them very beautiful, most of them well known as of the best quality.

The season for Plums being nearly over, there were but few dishes of this fruit exhibited. Of Peaches, also, the season was nearly passed, consequently they were not so abundant as they would have been had the exhibition been a little earlier. There were, however, some magnificent specimens of the Lemon Rarieripe, Early Crawford, Old Mixon, and other varieties. Grapes, from Messrs. Russell, Strong, Allen, and others, were very fine and in great variety.

There was a great collection of Pot Plants from the various conservatories, and green-houses of our amateurs and nurserymen, but for the want of room they were not exhibited to the greatest advantage. Among them were some large and splendid plants of Camellias, Oranges, Acacias, and other species. The stands for flowers were all filled with choice Dahlias, Asters, Roses, &c.

The display of Vegetables was better than at any former exhibition.

The Decorations were designed by Mr. Sharp, and executed by Mr. Haggerston, and his associates, and were of the most tasteful and pleasing character.

The whole arrangement of Fruit, Flowers, Plants, Vegetables, and Mottoes, was of the first order. Old Faneuil Hall never looked more lovely. The hallowed influence of fruits and flowers, seemed to have dissipated the political atmosphere of mists in which the place is wont to be shrouded, and it appeared to smile like the garden of Eden.

The throng of visitors was very great: among them we were happy to recognize delegations from the Horticultural Societies of Philadelphia, and West Chester, Penn., New Haven, Ct., Providence, R. I., Worcester, and New Bedford, Mass., Delaware, Queen's County, N. Y., Rochester, N. Y., and St. Louis, Mo. The exhibition was honored by great numbers of distinguished strangers as well as our best and most valuable citizens; and we believe there was a universal feeling of satisfaction on the part of all who witnessed the display, and

an acknowledgment that progress had been made in the Horticultural art.

FRUITS EXHIBITED.

From Marshall P. Wilder, of Dorchester, President of the Society, two hundred varieties of Pears—viz.: Andrews, Angletterre Noisette, Ananas (French,) Ah Mon Dieu, Alpha, Belle Angevine, B. d'Angers, B. d'Esquermes, B. Excellente, B. et Bonne, B. et Bonne (de Hee,) B. Caenais, B. Craonnaise, B. de Trois, Beurre d'Aremberg, B. d'Anjou, B. d'Amalis, B. d'Angleterre, B. Beauchamps, B. Beaufort, B. Bronze, (French,) B. Bronzee, B. Bose, B. Beurel, B. Brown, B. Capiaumont, B. Coloma, B. Cutter, B. Diel, B. Imperiale, B. Goubault, B. Gens, B. Kenrick, B. Golden (Rivers,) B. d'Elberg, B. de Rhine, B. Triguer, B. Knox, B. Nerekmann, B. Gris d'Hiver Nouveau, B. Moire, B. Noir Chain, B. Rance, B. Spence, Bon Chretien Williams's, B. C. Fondante, B. C. Winter, Bergamotte Cadette, Eergamot (Gansel's,) B. Easter, Buflum, Belmont, Bleeker's Meadow, Bezi de la Motte, B. des Veterans, Black Worcester, Brougham, Bankerbine, Beau present d'Artois, Bezi Vaet, Bizamumy, Bonne ente, Benoist, Cadet de Vaux, Catillac, Chaumontel Belge, C. Anglaise, Colmar Van Mons, Colmar d'Aremberg, C. du Lot Columbia, Compte de Lamy, Comtesse de Lunay, Capit St. Helene, Cushing, Delices de Jodoigne, Dunmore, Dix, Duchesse d'Angouleme, D. d'Orleans, Doyenne white, D. gray, D. gris d'hiver nouveau, D. musque, Dingle, Drake (Edwards'), De Lepine, Eyewood, Edwards (summer,) Epine d'hiver, E. Dumas, Echasserie, Enfant Prodiges, Exquis, Fulton, Forunee, Figue de Naples, Flemish Beauty, Fondante d'Automne, F. du Bois, F. du Bois (Vilmorin,) F. de Charneuse, Frederick of Wurtemberg, Gilogil, Glout Moreau, Girardin, Gendesheim, Glout Moreau, (Cambrone,) Green Sugar, Gros Romain Carmelite, Heathcot, Howell, Hericart, Inconnue Van Mons, Jalousie de Fontenay Vendee, Jalvie, Juvardelle, Jalousie nouvelle, Knight's Seedling, (R. I.,) King Edward, Lawrence, Louise bonne de Jersey, Leon le Clerc, Long Green (of Cox), Monarch, Madotte, Mansuette, Marie Louise, McLaughlin, Napoleon, Ne plus Meuris, Pater Noster, Poire de Conde, P. de Jacob, Passe Colmar, Paradise, Passe Tardive, Queen Caroline, Ridelie, Roi de Rome, Rousselet de Rheims, R. d'hiver, St. Michael Archange, (Rivers's,) St. Michael Archange, Sanspareille, Seckel, St. Germain, (Prince's,) do. Edwards's, do. Uvedale's, St. Andre (O.,) Sieule, Sucre Vert, Sageret, Stuyck, St. Denis, St. Laurens, St. Francis, Soldat Laboureur (Belgique,) Souvrain d'hiver, Sans Pepins, Salvati, Swan's Egg, St. Andre, (V.,) &c., Thompson, Tarquin, Unknown sorts, 11, Urbaniste, Vicar of Winkfield, Verte longue d'Automne panachee, Voix aux Pretres, Vicomte de Spoelberch, Van Mons No. 65, Van Mons Leon le Clerc, Winter Nelis, Wilbur, Whitfield, Wilkinson, Waterloo, &c., &c. Plums—Coe's Golden Drop, Merveille (new,) Reine Claude de Bavay, (new,) St. Catharine. Apples—Gravenstein, Lyman's Sweet, Gloria Mundi.

From the Pomological Garden, Salem, by R. Manning, two hundred and sixty sorts of Pears, viz.:—Ambrosia, Ananas d'Ete, Andrews, Althorp

Crassane, Alpha, Aston Town, Bruno de Bosco, Bergamotte d'Automne, Black Pear of Worcester, Bezi de Montigny, Beurre Witzhumb, B. Van Marum, B. Craupaud, B. Kenrick, B. Rance, B. Angletterre, B. d'Aremberg, B. Adam, B. of Bolwiller, B. Diel, B. Amandes, B. Thouin, B. d'Amalis, B. Delbecq, B. Bosc, Bleeker's Meadow, Bergamotte Parthenay, Bordeaux, Bergamotte Fortune, Brown Beurre, Brougham, Bon Chretien Fondante, Belle Fondante, Bergamotte Cadette, Bishop's Thumb, Burgomaster, Bezi de la Motte, Bois Napoleon, Bonne Louise, Brugman's Birne, Brande's St. Germain, Buftum, Bartlett, Belle et Bonne, Bergamot Neill, Cross, Comte de Lelieur, Colmar Epine, Calebasse Monstreuse, Comte de Lamy, Caroline, Columbia, Capuchin, Croft Castle, Capsheaf, Capiamont, Capucin, V. M., Catillac, Caillot Rosat, Chaptal, Caen du France, Coter, Calebasse, Clinton, Charles of Austria, Citron of Bohemia, Crassane, Clara, Coloma, Chaumontel, Cuvelier, Colmar Neill, Cabot, Dearborn (of Van Mons), Doyenne Boussoch, Du Parrain, Duchesse d'Angouleme, Duchesse d'Orleans, Dix, Doyenne d'Hiver, Dundas, Dunmore, Doyenne Gray, Duchesse de Mars, Doyenne d'Alencon, Doyenne White, Delices d'Hardenpont, Doyenne Louis, Eyewood, Easter Beurre, Endicott, Emerald, Easter Bergamot, Enfant Prodige, Epine d'ete, Flemish Beauty, Flemish Bon Chretien, Fig of Naples, Fulton, Fondante d'Automne, Frederick of Wurtemberg, Fantasie Van Mons, Flemish Sabine, Foster's St. Michael, Glout Morceau, Gilogil, Gendesheim, Gansel's Bergamot, Green Sugar, Golden Beurre of Bilboa, Henry the Fourth, Hadley, Hunt's Connecticut, Hathorne's Seedling, Heathcot, Hacon's Incomparable, Henriette, Hericart, Henri Van Mons, Harvard, Huguenot, Jaminette d'Hiver, Jalousie, Jean de Witte, Jaminette, Jalousie de Fontenay Vendee, John Dean, Juvardal, Jubin, Johannot, King Edward, Lincoln, Leon le Clerc, three vars., Long Green of Duhamel, Louise Bonne of Jersey, L. B. Real, Long Green, Lederbirne, Las Canas, Locke, Lewis, March Bergamot, Muscadine, Meuris d'Hiver, Marie, Manning, Marie Louise, Moccas, Messire Jean, Monarch (false), Miel de Waterloo, Madotte, Marcellis, Napoleon, Ne plus Meuris, Prince's St. Germain, Pitt's Marie Louise, Plombgastel, Paradise d'Automne, Pomme Poire, Petre, Princesse of Orange, Passe Colmar, Pope's Russet, Pater Noster, Pennsylvania, Pailiau, Parmentier, Queen of the Low Countries, Quilletette, Rousse Lench, Rameau, Raymond, Rousselette de Rheims, R. de Meester, R. d'Esperen, Ronville, Reine des Poires, Seckel, Seedling, Surpasse Virgalieu, Sousreine, Sickler, Sanspareil, St. Germain Tillon, St. Bruno, St. Germain, Spanish Bon Chretien, Sieulle, Sovereign of Spring, Sullivan, Serrurier d'Automne, Schooling Merry, Stevens's Genesee, St. Ghislain, Swiss Bergamot, Superfondante, Shobden Court, Thompson's, Tillington, Uvedale's St. Germain, Urbaniste, Van Mons Leon le Clerc, Vacat, Vicar of Winkfield, Van Assene, Whitfield, Winter Crassane, Winter Nelis, Wilkinson, White Doyenne, Winter Quince, Washington, Williams's Early, Wurzer d'Automne; fifteen varieties, unknown, and the following Nos. of Van Mons:—No. 135, 177, 182, 365, 698, 858, 879, 968, 969, 982, 1028, 1036, 1074, 1082, 1253, 1258, 1325, 1451, 1454, 1482, 1535, 1602, and five vars. unknown. Apples—one hundred and eighteen varieties, viz.:—Aunt Hannah, Acton Spice, Ananas, Alfreton, American Golden Pippin, Brabant Bellflower, Black Apple, Baldwin, Boxford, Ben, Black Coal, Beauty of Kent, Beacham-

well's, Bickley's White Sweet, Cambothnethum, Crow's Egg (?), Cornish Aromatic, Chandler, Corse's Sweeting, Danvers Winter Sweet, Drop d'Or, Denmark, Downton Pippin, Dumelow Seedling, Dutch Codlin, Esopus Spitzenburg, Edward's Russet, English Summer Pearmain, English Golden Russet, Fall Harvey, Framata Rosa, Fameuse, Fallawater, Fearn's Pippin, Fenouillet Rouge, Granny Earl, Gravenstein, Green Sweet, Hay Boys, Grey French Reinette, Gloucester, Hubbardston Nonsuch, Haskell Sweeting, Holland Pippin, Hoary Morning, Ipswich Seek-no-further, Jonathan, Kraam, King of the Pippins, Hampshire Green, King Philip, Lovett Sweeting, Lucombe's Seedling, two vars., Leyden Pippin, Lyman Pumpkin Sweet, Lyseom, Large Burden, Minister, Maiden's Blush, Murphy, Mela Carla, Morgan's Royal, Morgan, Merchants' Reding, Nonsuch, Needles, Newark Pippin, Otley Pippin, Pumpkin Sweet, Pennock's, Pigeonette, Pelham Sweet, Pound, Pomme Royale, Pearson's Plate, President, Porter, Pownal Spitzenburg, Priestley, Rawles' Janet, Ribston Pippin, Rose of Sharon, Rhode Island Greening, Rymer, Ramsdell's Red Pumpkin Sweet, Roxbury Russet, Rambour Franc, Red Calville, Roe's Sweet, Rambo, Roman Stem, Russet Pearmain, Spice Sweet, Swan's Pine, Swaar, Sam Young, Scarlet Nonpareil, Sparhawk's, Spring Greening, Slug Sweeting, Strawberry, Templeton Winter Sweet, Turn of the Lane, Vermont Sweet, Vandevere, two vars., Wormsley Pippin, Winesap, Wellington, two vars., Winter Sweet Paradise, Wells' Sweeting, Winter Queen, Wing Sweeting, Waterman Reding, Warner Russet, Yellow Bellflower.

From Vice President B. V. French, of Braintree, seventy-three varieties of Apples, viz.:—Adam's Sweet, Black Apple (of Cox), Blenheim Orange, Burrasoe, Baltimore, Ben Apple, Blooming Red, Baldwin, Canada Reinette, Dutch Codlin, Dominisky, or Lord's, Danver's Winter Sweet, Esopus Spitzenburg, French's Sweet, Fallawater, Fearn's Pippin, Fall Greening, Gardner's Sweet, Gravenstein, Golden Russet, Garden Striped, Hoary Morning, Hawthornden, Hubbardston Nonsuch, Jonathan Kenrick's Autumn, Long Nonsuch, Long Russet, Lucomb's Seedling, Lyseom, Murphy, Monstrous Pippin, Mela Carla, Nonsuch, Nonpareil, Pomme de Neige, Porter, Pomme d'Api, Pumpkin Russet (sweet), Peck's Pleasant, Pearmain, Pennock, Royal, Ruggles, Ross's Nonpareil, Roxbury Russet, Rhode Island Greening, Sweet Greening, Seaver's Sweet, Sugar Sweet, Seek-no-further, (from Hingham), Seek-no-further, Wine, Winter Gillflower, Spice, White Wales Apple, Wellington, Yellow Bellflower, Yellow Newtown Pippin; thirteen varieties unknown. Pears—viz.: Beurre Bosc, B. Van Marum, Capiamont, Duchesse d'Angouleme, Grosse Bruxelles, Gore's Heathcot, Good Lewis (?) Harvard, Long Green, Messire Jean, Seckel, Passe Colmar, Tillington, Vicar of Winkfield. Peaches—viz.: Crawford's Late, Old Mixon (free).

From Vice President Cheever Newhall, of Dorchester, twenty-four varieties of Pears—viz.: Althorp Crassane, Beurre Diel, B. d'Aremberg, B. d'Amalis, Bleeker's Meadow, Chaumontel, Dunmore, Dix, Frederick de Wurtemberg, Fondante d'Automne, Fulton, Harrison Autumn, Heathcot, Knight's Seedling, Louise Bonne de Jersey, Long Green, Lawrence, Vicar of Winkfield, Marie Louise, McLaughlin, Napoleon, Oliver's Seedling, Rousselet de Rheims, Urbaniste. Apples—viz.: Domine, De Neige, Golden Pippin, Gravenstein, Porter, R. I. Greening, Rambo, Ribston Pippin,

Snow Apple, Seaver Sweet, Winter. Plums—viz.: Coe's Golden Drop, Purple Prune, Orleans, Prune d'Agen. Peaches—Crawford's Early, Old Mixon.

From Samuel Walker, Roxbury, eighty-two varieties of Pears—viz.: Andrews, Ananas, Angora, Belle et Bonne, Boucquia, Belle et Bonne de Hee, Bergamot (Gansel's), B. Hampden's, Beurre d'Aremberg, B. Brown, B. Capiaumont, B. Diel, B. Duval, B. Easter, B. Rance, B. Golden of Bilboa, B. d'Anjou, B. Piquery, Bezi Vaet, Bicknal, Bon Chretien (Williams's), Broom Park, Chaumontel, Chaptal, Colmar d'Ete, Champagne, Colmar d'Autonne, Comte de Lamy, Columbia, Crassane, Crassane, (Winter), Crassane Althorp, Dix, Doyenne White, D. Gray, D. Rouge, D. Dore, Duchesse d'Angouleme, Dunmore, Delices de Jodoigne, Epine Dumas, Eyewood, Flemish Beauty, Fondante d'Autonne, F. Van Mons, Figue, F. de Naples, Fourcroy, Gilogil, Gendeshem, Glout Morceau, Hacon's Incomparable, Johannot, Lawrence, Louise Bonne de Jersey, Messire Jean, McLaughlin, Monarch (Knight's), Moor-fowl Egg, Martin Sec, Napoleon, Ne plus Meuris, Pacquency, Passe Colmar, Queen of Low Countries, Rousselette de Rheims, Rousselette, Seckel, St. Germain, St. Ghislain, St. Mesmire, Swan's Egg, Stone, Tyson, Urbaniste, Van Mons Leon le Clerc, Verte Longue b'Autonne, Voix aux Pretres, Winter Nelis, Williams's Early, and two varieties unknown.

From Josiah Lovett, of Beverly, twenty-six varieties of Pears—viz.: Althorp Crassane, Andrews, Beurre Bosc, B. Diel, B. d'Amalis, Gansel's Bergamot, Catillac, Dunmore, Flemish Beauty, Fondante d'Autonne, Fulton, Great Citron of Bohemia, Harvard, Golden Beurre of Bilboa, Jalousie, King Edward, Knight's Monarch, Louise Bonne de Jersey, McLaughlin, Marie Louise, Madotte d'Hiver, Pitt's Prolific, Summer Franc Real, Urbaniste, Winter Nelis, Williams's Bon Chretien.

From Otis Johnson, Lynn, sixty-three varieties of Pears—viz.: Angleterre, Brown Beurre, Beurre d'Aremberg, B. d'Amalis, B. Bronzee, B. Diel, Buffum, Bleeker's Meadow, Bezi de la Motte, Belle et Bonne, Catebasse, Catillac, Cushing, Duchesse d'Angouleme, Doyenne blanc, Dix, Echasserie, Epine d'Ete, Easter Beurre, Flemish Beauty, Frederick of Wurtemburg, Franc Real d'Hiver, Glout Morceau, Gilogil, Harvard, Henry IV., Hacon's Incomparable, Hericart, Jalousie, Johannot, Lewis, Louise Bonne de Jersey, Lawrence, Moccas, Marie Louise, Martin Sec, Marquis, Napoleon, Princess of Orange, Passe Colmar, Prince's St. Germain, Pope's Russet, Rousselet de Rheims, R. Panache, Seckel, Saint Ghislain, Uvedale's St. Germain, Urbaniste, Valee Franche, Verte Longue, Vicar of Winkfield, Winter Nelis, Washington, Williams's Bon Chretien, and seven kinds unknown. Grapes—Black Hamburg, White Chasselas, White Muscat of Alexandria, Zinfendal. Two varieties of Apples. Four varieties of Peaches. Four varieties of Plums.

From Joseph S. Cabot, Salem, Sixty-six varieties of Pears—viz.: Althorp Crassane, Andrews, Beurre Diel, B. d'Aremberg, B. Meise, B. Curtet, Basket, Bon Chretien Fondante, Louise Bonne de Jersey, Bezi de la Motte, Belle Esquermes, Gansel's Bergamot, Bocquia, Cushing, Capiaumont, Catillac, Capucin, Comte de Lamy, Croft Castle, Columbia, Chaumontel, Capsheaf, Cross Pear, Colonel's Winter, Doyenne d'Hiver, Duvivier, Easter Beurre, Enfant Prodige, Fulton, Fig Extra, (Van Mons), Fondante Rouge, Flemish Beauty, Fortune, Great Citron of Bohemia, Gendeshem, Golden Beurre of Bilboa, Henri Quarte, Hericart, Jalousie,

Long Green, Lewis, Urbaniste, Long Green of Europe, Messil d'Hiver, Muscadine, Maria Louise nova, Paradise d'Autonne, Pacquency, Princess of Orange, Poire Rameux, P. Gerande, Queen of Low Countries, Rousselet Precoce, St. Andre, Summer Rose, Surpasse Virgalieu, St. Ghislain, Seckel, Seedling Maria, Surpasse St. Germain, Sucre Vert, Spence, from Rivers, Smith's Pennsylvania, Thompson, Winter Nelis, Wilkinson.

From Thomas Dowse, Cambridge, four dishes of Bartlett, and three of Gansel's Bergamot Pears.

From Josiah Gilmore, by G. L. Gilmore, Newton, Apples—Blue Pearmain, Bellflower, Blush Apple, Egg Apple, Hubbardston Nonsuch, Lady Apple, Roxbury Russet, Spitzenberg. Pears—Flemish Beauty, Seckel.

From John M. Ives, Salem, Pears—viz.: Andrews, Bartlett, Beurre Romain (?), B. Bosc, Belle Lucrative, Bezi de la Motte, Cushing, Columbia, Flemish Beauty, Fulton, Golden Beurre of Bilboa, Harrison's Fall Baking, Hacon's Incomparable, Jalousie, Long Green, Washington, Winter Nelis. Apples—a superior late Apple from Stratham, N. H.; a fine tender Sweet, Essex county variety. Plums—Green Gage, Reine Claude Violet, Red Gage of Downing, Sharp's Emperor. Peach—Ives's Early Melacoton.

From I. Fay, Cambridgeport, Pears—William's Bon Chretien, Capiaumont, Chaumontel, Easter Beurre, Golden Beurre of Bilboa, Louise Bonne de Jersey, Napoleon, St. Michael, Seckel, and one unnamed. Peaches—Coolidge's Favorite, Jaques' Rareripe, Lemon Rareripe, Owen's do., Pike's Rareripe, Red and Yellow Rareripe.

From Parsons & Co., Flushing, L. I., and Brighton, Mass., Apples—thirty-two varieties, viz.: Autumn Bough, Court of Wyck, Esopus Spitzenberg, Fallwater, Franklin's Golden Pippin, Fall Harvey, Fameuse, Fall Pippin, Federal Pearmain, Golden Russet, Herefordshire Pearmain, Hawthornden, Kilham Hill, Long Stem, Michael Henry Pippin, Marigold, Morris Sweeting, Maiden's Blush, Newtown Pippin, Newton Spitzenberg, Nonsuch, Pennock's, Pickman's Pippin, Rambo d'Ete, Scheenmaker. Seek-no-further, Tolman's Sweeting, Trimmer's Russet, Vandevere, Willis Sweeting, Yellow Bellefleur. Pears—Lawrence, from the original tree.

From George R. Russell, West Roxbury, Grapes—Black Hamburg, Chasselas de Fontainebleau, Muscat of Alexandria, Royal Muscadine, Red Frontignan, Syrian, Wilmot's Black Hamburg, White Frontignan.

From Thomas Liversidge, Dorchester, Black Hamburg Grapes.

From M. H. Ruggles, Fall River, Pears—Bartlett, Durfee, Hull, Phillips, Seckel, Wilbur, all fine specimens.

The following note from Mr. Ruggles, accompanied these Pears:—

Durfee, or Shaul Pear.—This variety originated on the farm of George Durfee, in Tiverton, R. I. The trunk of the parent tree is some eight or ten inches in diameter. It may be thirty or forty years old. It is a good bearer.

Wilbur Pear.—Originated on a farm owned by William Wilbur, in Somerset. It has been undergoing a change in some trees—the fruit is much larger and the flavor not as good as when the fruit was smaller.

Phillips Pear.—Originated on the Phillips farm in Newport, R. I.; or I found it there, and have been able to trace all synonyms to that stock. The tree

from which I took the grafts is quite old—perhaps one hundred years, or more.

Hull Pear—Originated in Swanzev. The parent tree was found by Mr. Hull, and by him brought home and nurtured. On the same farm was found another native variety, which was called *Mason Pear*.* By some means the names have become confounded. Mr. Wilbur sent some of the latter to the Society a few years ago, by the name of Hull pears, which was very much liked, and perhaps the misnomer may thereby be perpetuated.

M. H. RUGGLES.

Fall River, Sept. 16, 1846.

From George C. Crowningshield, Brookline, Persian Green-flesh Melon.

From George Newhall, Dorchester, Pears—Williams' Bon Chretien, Beurre Bose, Black Pear of Worcester, Cumberland, Catillac, Dix, Frederick of Wurtemberg, Fulton, Louise bonne de Jersey, Seckel, Urbaniste, Vicar of Winkfield, Peaches—Jacques.

From Samuel Downer, Jr., Dorchester, Pears—Louise bonne de Jersey, Golden Beurre of Bilboa, Vicar of Winkfield, Williams' Bon Chretien.

From F. W. Maconndray, Dorchester, thirty-seven varieties of Pears—viz: Arch Duke Charles, Andrews, Belle et Bonne, Beurre Moire, B. Chori, B. Brown, B. Diel, B. Royal, B. Picquery, B. Easter, B. d'Amalis, Bezi de la Motte, Black Pear of Worcester, Chaumontel, Crassane, Catillac, Callebasse Bose, Dix, Doyenne Gray, Figue de Naples, Fortunee, Flemish Bon Chretien, Glout Morceau, Long Green of Autumn, Louise Bonne de Jersey, McLaughlin, Marie Louise, Napoleon, Prince's St. Germain, Queen of the Low Countries.

From Messrs. Winship, Brighton, thirty-three varieties of Pears, viz: Althorp Crassane, Angletterre, Williams' Bon Chretien, Belle et Bonne, Beurre Diel, B. de Capiaumont, B. Rance, B. Lucrative, B. d'Hiver, B. dore, Bergamot de Paysans, B. de Paques, B. Pentacote, Belle Lucrative, Cumberland, Catillac, Dunmore, Doyenne d'Ete, Duchesse, Fulton, Fortunee, Glout Morceau, Heathcot, Jalousie de Fontenay, Louise bonne de Jersey, Lewis, Moorfowl Egg, Napoleon, Passe Colmar, Rousse Lench, Sageret, Winter Nelis, Wilkinson. Apples—London, Leadington, Grand Sachem.

From Warren's Garden, Brighton, forty-four varieties of Apples—viz: Atwater, Alexander, Bellflower, Baldwin, Blue Pearmain, Captain, Danvers Sweet, Detroit, Early Russet, Egg Apple, Gardner Sweeting, Golden Russet, Hubbardston Nonsuch, Hawthornden, Long Nonsuch, Lancaster, London, Minister, N. Y. Greening, Old Pearmain, Pumpkin Sweet, Porter, Prince Charles, Pomme de Neige, Roxbury Russet, Rhode Island Greening, Ribstone Pippin, Red Siberian, Red Bellflower, Sweet Russet, Spice, Spitzenberg, Seedling, Striped Spice, Vandervere, Warren's Spice, Yellow Bellflower, Yellow Siberian, and five other kinds. Pears—thirty-eight varieties, viz: Andrews, Williams' Bon Chretien, Buffum, Bezi de la Motte, Black Pear of Worcester, Bezi d'Montigny, Beurre Diel, Crassane, Catillac, Duchesse d'Angouleme, Easter Beurre, Flemish Beauty, Golden Beurre of Bilboa, Glout Morceau, Gansel's Bergamot, Heathcot, Iron Pear, Juliette (second crop), Marie Louise, Napoleon, Seckel, Vert longue Panachee, Winter Nelis, Wilkinson, Washington, and twelve others for names; also, fruit of the *Pyrus Japonica*. Quinces—Orange,

Musch-Musch, Pear Quince. Melon—Persian Green Flesh. Grapes—Black Hamburg, Black St. Peters, Red Chasselas, Palestine, and a fine basket of Fruit.

From Aaron D. Williams & Son, Roxbury, twenty-six varieties of Pears—viz: Angletterre, Andrews, Beurre d'Amalis, B. Brown, B. Easter, Bergamot, Belle Lucrative, Crassane, Flemish Beauty, Golden Beurre of Bilboa, Harvard, Louise bonne de Jersey, Messire Jean, Madotte, Napoleon, Passe Colmar, Rousselet de Rheims, Seckel, St. Germain, St. Michael, Summer Thorn, Urbaniste, Verte Longue, Vicar of Winkfield, Williams' Bon Chretien, Williams' Early. Apples—fourteen varieties, viz: Baldwin, Blue Pearmain, Daniel Wise, Fameuse, Gravenstein, Golden Pippin, Greening Sweet, Porter, R. I. Greening, Roxbury Russet, Ram's Horn, Russet Sweet, Summer Sweet.

From Alfred A. Andrews, Roxbury, Pears—viz: Beurre Diel, B. d'Aremberg, B. d'Amalis, Bezi de la Motte, Columbia, Colmar d'Aremberg, Fulton, Louise bonne de Jersey, Passe Colmar, Swan's Egg.

From P. J. Mayer, Weston, Apples—viz: Blue Pearmain, Baldwin, Congress, Hubbardston Nonsuch, Mackey Greening, do. Sweeting, Porter, Roxbury Russet, R. I. Greening, Trull Sweeting. Pears—Doyenne White, Williams' Bon Chretien. Peaches—three varieties.

Apples—from the farm of Moses Kingsley, Esq., Kalamazoo, Mich., gathered Aug. 28, 1848, viz: Baldwin, Pippin, Bellflower, Gilliflower, Cabushaw, Greening, Jonathan, Nonsuch, Red Winter, Spitzenberg, Seck-no-further, Twenty-ounce Pippin.

From Nahum Stetson, Bridgewater, Grapes—viz: Black Hamburg, Chasselas d'Fontainebleau, Esperie, New Black Hamburg, Pitmaston White Cluster, Rose Chasselas, Syrian, Wilmot's Black Hamburg. Pears—viz: Williams' Bon Chretien, Duchesse d'Angouleme, Doyenne White, Figue de Naples, St. Ghislain. Peaches—Crawford's Early, Stetson's Seedling, Tice's Early, and three varieties names unknown. Plum—Fellemburg. Figs—Brunswick.

From Asa Clement, Dracut, Apples—viz: Haskell Sweeting, Kilham Hill, Parker's Sweeting, Porter, Russet Sweeting, R. I. Greening, York Apple.

From John Gordon, Brighton, Pears—twenty-three varieties, viz: Buffum, Brown Beurre, B. Rance, Duchesse, d'Angouleme, Easter Beurre, Flemish Beauty, Frederick of Wurtemberg, Glout Morceau, Henry IV., Locke's Seedling, Louise bonne de Jersey, Napoleon, Passe Colmar, Queen of the Low Countries, Stevens' Genesee, Doyenne White, Seckel, St. Ghislain, Vicar of Winkfield, Verte Longue, Williams' Bon Chretien, Wilkinson, Winter Nelis. Plums—Coe's Golden Drop. Three Watermelons.

From Thomas Needham, Brighton, by O. H. Mathers, Grapes—fourteen varieties, viz: Black Hamburg, Black St. Peters, Black Lombardy, Cannon Hall, Chasselas of Fontainebleau, Chasselas Musque, Frankendale, Golden Chasselas, Grizzly Frontignan, Muscat of Alexandria, Palestine, Purple Malvasia, Syrian, White Frontignan.

From Francis Dana, Roxbury, Peaches—four Seedlings. Quince Apple.

From John A. Kenrick, Newton, Apples—viz: Baldwin, Cogswell, Hubbardston Nonsuch, High-top Sweeting, Porter. Pears—Beurre de Capiau-

* The variety under cultivation in this region as the "*Hull*"

mont, Flemish Beauty, Louise bonne de Jersey, Urbaniste, Vicar of Winkfield.

From John S. Sleeper, of Roxbury, Pears—Belle et bonne d'Hee, Beurre Diel, Doyenne White, Eyewood, Glout Morceau, Marie Louise, Vicar of Winkfield, Verte longue Panachee. Apples—Hubbardston Nonsuch.

From Galen Merriam, West Newton, Pears—Beurre Diel, Bezi de la Motte, Catillac, Duchesse d'Angouleme, Fortunee, Long Green, Martin Sec, Napoleon, Rousselet, Williams's Bon Chretien. Peaches—Crawford's Early, George IV., Lemon Rareri, Morris White.

From Lewis Davenport, Milton, Apples—Baldwin, Golden Russet, Nonsuch, Peck's Pleasant, R. I. Greening, Roxbury Russet. Grapes—Black Hamburg. Peaches—Tippecanoe Cling.

Brandywine Pear—raised by Dr. Ellwood Harvey, near Chads-Ford, on the Brandywine, Delaware county, Penn.; two specimens.

From Isaac Jeffries, Chester co., Penn., Seedling Apples, viz: two red, called Jeffries, two yellow called Burlingham.

From Dr. Eshelmar, Chester co., Penn., a basket of Red Seedling Apples.

From the orchard of Wm. C. Hickman, near Westchester, Chester co., Penn., a basket of Peaches.

From B. K. Bliss, Springfield, Mass., very large Native Grapes.

From John F. Allen, West Cambridge, eight Cantelope Melons, very large.

From Mrs. Spaulding, South Reading, Fruit of the Passion Flower. Also, a Lemon, from a tree fourteen years old, having on it one hundred fine specimens. Apples—Crab and Pumpkin Sweet.

From George Walsh, Charlestown, Apples—viz: Baldwin, Nonsuch, Winter Greening, three varieties for name, and three varieties of Crab Apples. Pears—viz: Brown Beurre, Doyenne White, Williams's Bon Chretien, Winter Nelis, two varieties for name. Grapes—Isabella.

From W. Keith, West Roxbury, Apples—viz: Hightop Sweet, Pumpkin Sweet, Porter.

From John Henshaw, Cambridge, Pears—Beurre Diel, Duchesse d'Angouleme.

From J. Balch, Jr., Roxbury, Pears—four varieties, in a basket.

From S. D. Pardee, Esq., New Haven, Conn., Pear—Howell's Seedling, from the original tree, in the garden now owned by Mr. John English.

From John Arnold, Jr., Milton, Grapes—Black Hamburg, Zinfendal.

From Mrs. C. Hutchinson, Boston, Grapes—Black Malaga, one variety unknown.

From Artemas Rogers, Watertown, Plum—Roger's Purple. Pot of Honey, 7 lbs.

From Oliver Livermore, Brighton, one dozen Apples.

From John David D'Wolfe, Westchester county, N. Y., Pears—Seckel.

From John Albree, Newton Corner, Pears—Duchesse d'Angouleme, Easter Beurre, Napoleon, Williams's Bon Chretien. Apple—Pumpkin Sweeting.

From George Peirce, West Cambridge, Pears—Williams's Bon Chretien, fine. Porter Apples, fine.

From Mrs. James Adams, Roxbury, two dishes Seckel Pears, extra fine, one dish Chaumontel.

From Wm. B. Kingsbury, Pears—viz: Beurre Diel, B. Brown, Catillac, Bell Pear, Doyenne Gray, Iron Pear, Martin Sec, Passe Colmar, two varieties unknown.

From L. R. Mears, Dorchester, Seckel Pears.

From John H. Welch, Esq., Dorchester, thirteen varieties of Pears, viz: Beurre Diel, Dix, Duchesse d'Angouleme, Fulton, Frederick of Wurtemberg, Flemish Beauty, Gansel's Bergamot, Rousselet de Rheims, Swan's Egg, St. Michael, St. Ghislain, Urbaniste, Verte longue Panachee.

From Henry Vandyne, Cambridge, twenty-nine varieties of Pears, viz: Andrews, Beurre Spence, B. Diel, Charles of Austria, Doyenne White, Flemish Beauty, Frederick of Wurtemberg, Glout Morceau, Golden Beurre of Bilbao, Heathcot, Marie Louise, New Long Panachee, Passe Colmar, Prince's St. Germain, Queen of the Low Countries, Seckel, Spanish Bon Chretien, Turkish Bon Chretien, Treasure, Williams's Bon Chretien, Washington, and seven varieties unknown. Plums Huling's superb, Coe's Golden Drop. Seedling Nectarine.

From Charles H. Tomlinson, Schenectady, N. Y., Gansel's Bergamot Pears, large.

From Elbridge Tufts, Cambridgeport, Apples, viz: Baldwin, Blue Pearmain, Cory Greening, English Pearmain, Fall Pippin, Ribstone Pippin, Roxbury Russet, Striped Red Sweeting, Tuft's Baldwin, (seedling,) York Russet, kind unknown.

From James Eustis, S. Reading, twenty-five varieties of Apples, viz: Ben, Burr's, Bough, Harvest, Baldwin, Columbian Pippin, Dutch Codlin, Golden Ball, Hubbardston Nonsuch, Jewett's fine Red, Kilham Hill, Kittredge Sweet, Nonsuch, Orange Sweet, Porter, Philadelphia Pippin(?), Roxbury Russet, R. I. Greening, Spice Apple, Sweet Winter Russet, Triangle, Trunnell. Seedling Peach.

From Lewis Wheeler, Cambridgeport, Pears—Dunmore, Williams's Bon Chretien. Plums—Lombard, White Gage.

From Enos Bartlett, Roxbury, Pears—Culotte de Suisse, Frederick of Wurtemberg, Gansel's Bergamot, Heathcot.

From Hovey & Co., one hundred and two varieties of Pears—viz.: Abricote, Angletterre, Beurre d'Aremberg, B. Brown, B. d'Amalis, B. Capiaumont, B. Diel, B. Easter, B. Rance, B. Romaine, B. d'Anjou, B. de Moire, B. de Beaumont, B. Rose, Belle et bonne de Hee, Belle et Bonne, Belle Lucrative, B. Epine Dumas, B. Heloise, B. Henriette, B. de Thouars, B. Esquermes, Bergamot de Bruxelles, B. Cadette, B. Parthenay, Bon Chretien (Williams's,) B. Spanish, B. Fondante, Belmont, Chaumontel, Comte de Lamy, Cross, Colmar d'Aremberg, C. du Lot, Chaptal, Coter, Doyenne white, D. Boussoch, D. Santelete, D. Musque, Duchesse de Mars, D. d'Angouleme, D. de Berri, Dunmore, Duvernay, Dumortier, Esperine, Flemish Beauty, Forelle, Figue de Naples, Fondante Rouge, Glout Morceau, Grosse Calbasse (Jamin,) Hull, Leon le Clerc (old,) Leon le Clerc Van Mons, Louise Bonne de Jersey, Le Cure, Las Canas, Maria Louise, Monarch (Knight's,) Madotte, Napoleon, Ne plus Meuris, Passe Colmar, Poire Henriette, Rousselet de Rheims, Seedling Maria, Seckel, Styrian, Sargeret (V. M.), Soldat Labourer(?) Sieulle, Verte longue d'Automne, Vicompte de Spoelberche, six kinds unnamed, and the following "new varieties"—viz.: Adele de St. Denis, Belle Apres Noel, Beurre Baud, B. Supreme, B. Benoits, Bezi Veterans, Bonne des Zees, Capit St. Helene, Dingler, Duc de Bordeaux, Episcopal, Ferdinand de Meester, Girardin, Inconnue Van Mons, Jersey Gratioli, Poire de Carisie, St. Nicholas, St. Denis, Triomphe de Jodoigne, Truckhill Bergamot, and 292 of Van Mons. Apples—viz.:

Baldwin, Court Pendu, Carthouse, Downton Pippin, Hawthorndean, Hornead Pearmain, Herefordshire Pearmain, James River, Jonathan, Pleasant Valley Pippin, Russet(?), Roxbury Russet, R. I. Greening, Sturmer Pippin, three varieties unnamed. Grapes—viz.: Bourdela, Black Prince, Black Hamburg, Wilmot's do., do. No. 16, Chaptal (new.), Chasselas de Fontainebleau, De Candolle (new.), Esperione, Frontignan, (White), F. Grizzly, Golden Chasselas, Morant (new.), Muscat Blanc Hatif, M. of Alexandria, M. of Tottenham Park, M. of Portugal, M. Cannon Hall, M. de la Mi Aout, Syrian, Scharges Henling (new.), White Nice, Zinfendal, Guava, (Psidium Cattleynum.) Melons—Beechwood, Christiana, Nutmeg, Peach, Persian. Peaches—Favorite, Sweet Water, White Ball. Oranges and Lemons. Plums—Semiami, Roger's Blue.

From Bissell & Hooker, Rochester, N. Y., Apples, viz.: Fameuse, Fall Juneting, Hooker, Pomme Gris, Swaar. Pears, viz.: Swan's Orange, Stevens's Genesee, White Doyenne.

From James Munroe, Cambridge, Pears—Calebasse, Capiaumont, Vicar of Winkfield, Passe Colmar.

From Messrs. S. & G. Hyde, Newton, Apples—forty-six varieties, viz.: Andover Harvest, Apple from Worcester, Baldwin, Blessings (from Vermont,) Bough Harvest, Bellefleur, Blue Pearmain, Codlin, Cathead, Detroit, Egg Apple, French Nonpareil, Flanders Pippin, Fuller's Apple, French Pippin (fall), Green Russet, Gravenstein, Gardner's Sweet, Hubbardston Nonsuch, Long Nonsuch, Newton Spitzenberg, Newton Pippin, No Core, Old Pearmain, Old Red Nonsuch, Pelham's Sweet, Picena Apple, Philadelphia Pippin, Porter, Pound Royal, Pumpkin Sweet, Pearmain, Roxbury Russet, Ribston, Pippin, Red Crop, Red Sweet, R. I. Greening, Spitzenberg, Seaver's Sweet, Sudbury Pound (fall), Strop Apple (fall.) Sweet Greening (fall.) Winter Spice, Yellow Apple, Yellow Crab.

From John A. Hall, Raynham, Apples—Baldwin, English Pearmain, Nonsuch, Pomme water, Peck's Pleasant, R. I. Greening, Roxbury Russet, Talmon Sweeting, Tender Sweet, Wing Sweeting.

From James Cruickshanks, Waltham, Water Melons—Black Spanish, Mountain Sprout, Long Island Round.

From Henry H. Crapo, New Bedford, Ananas, Beurre d'Anjou, B. de Beaumont, B. de Capiaumont, B. Golden of Bilboa, B. Diel, B. d'Aremberg, Colmar d'Aremberg, Dunmore, Duchesse d'Angouleme, Doyenne Boussoch, Fulton, Fondante d'Automne, Holland Bergamot, Hacon's Incomparable, Julienne, Jean de Witt, Jalousie de Fontenay Vendee, Louise bonne de Jersey, Madotte, Napoleon, Passe Colmar, Seckel, Vicar of Winkfield, Vert Longue, Williams's Bon Chretien and five varieties for name. Apples—Autumn Bough, Twenty-ounce; grown upon the farm of Humphrey Howland, of Scipio, Cayuga county, N. Y.

From John Fisk Allen, of Salem, thirty-three varieties of Grapes, viz.: Black Hamburg, Wilmot's new Black Hamburg, Wilmot's No. 16, Black Hamburg, White Gascoigne, Esperione, Grizzly Frontignan, White Frontignan, Hanstretto, Black Sweet Water, Black Prince, Portuguese Muscat, Zinfendal, Syrian, Chasselas de Fontainebleau, Chasselas de Bar sur Aube, Red Chasselas, Rose Chasselas, Golden Chasselas, White Sweet Water, White Tokay, White Nice, De Candolle, Muscat of Lunel, Muscat of Alexandria, Black St. Peter's, Black Lombardy, Chaptal, August Muscat,

Red Traminer, Whortley Hall Seedling, Ferral' Royal Muscadine, Isabella. Pears—Ronville' Gansel's Bergamot, Seckel, Fondante d'Automne. Peaches—Bellegarde, La Fayette, Yellow Rare-ripe, Tippecanoe, Teton de Venus, Kenrick's Orange. Plums—Coe's Golden drop.

From Weeber, Wyoming county, N. Y., by F. K. Phoenix, of the Delavan Nursery, Delavan, Wisconsin. Apples—Edgerly Sweet, Durham, or Flower of Edinburg, Federal, Changeable, Tift Sweet, Sweet Gilliflower, Lenox, Detroit Red, Perry Russet, Pound Sweet, September Sweet, Striped Pippin, Ox Apple, Pearmain, White Bellflower, King George's Favorite, Green Sweet, King Apple, Griffith's Sweet, Harvest Gilliflower, Early Sweet Red, and nine other kinds nameless, or merely local names.

From James P. Oliver, Lynn, Oliver's Russet Pears, from the original tree.

From H. Snyder, Kinderhook, N. Y., Doyenne White Pears, and Vandervere Apples.

From R. Whittier, Chicopee, Pears—Brown Beurre, Bleeker's Meadow, Easter Beurre, Louise Bonne de Jersey, Seckel.

From Aaron D. Capen, Dorchester, Pears—Beurre de Capiaumont, Duchesse d'Angouleme, Louise Bonne de Jersey, Passe Colmar, Seckel. Apples—Golden Russet, and a variety unknown. Seedling Peaches. Melons.

From Charles Sprague, Boston, Spanish Filberts grown in the city of Boston.

From Charles E. Fisk, Natick, Porter Apples.

From James Arnold, New Bedford, Grapes—Black Hamburg, Chasselas de Fontainebleau, Royal Muscadine, Royal Muscat, St. Peters.

From Geo. Jacques, Worcester, Pears—Coffin's, White Doyenne, Virgalieu. Peach?—11 1-3 inches in circumference; weight, 11 5-8 ounces.

From Dr. W. W. Cutler, South Reading, Apples, River?

From Samuel Pond, Cambridgeport, Pears—Andrews, Beurre Diel, Cushing, Columbia, Doyenne White, Dix, Flemish Beauty, Fondante d'Automne, Louise Bonne de Jersey, Marie Louise, Napoleon, Seckel, Surpasse Virgalieu, Urbaniste, Vicar of Winkfield, Williams's Bon Chretien.

From Isaac Pullen, Hightstown, N. J., Peaches, Crawford's Late, Melacoton.

By Isaac P. Davis, Endicott Pears, from the original tree, 220 years old.

From G. F. Chandler, Lancaster, Apples.

From Wm. Adams, Woburn, a Water Melon, weighing 37 1-2 lbs.

From N. N. Dyer, South Abington, Apples—Black Detroit, Brown Jacket, Bedford Sweeting, Crow's Egg, Fameuse.

From J. M. Everett, Foxboro', Native Grapes, for premium.

Extra fine specimens of Seckel Pears, from the New Jersey Horticultural Society, came too late for exhibition.

FLOWERS EXHIBITED.

From Marshall P. Wilder, President of the Society, a great variety of fine Plants, consisting of large Camellias, &c. Also, fine Dahlias, Phloxes, Roses, and other Cut Flowers.

From A. Aspinwall, Roses, in variety.

From John A. Lowell, a great variety of superb Plants.

From Thomas Liversidge, Dorchester, a variety of Plants.

From Messrs. Winship, fine Pot Plants, Bouquets, Dahlias, &c.

From John Albree, Dahlias, Roses, &c.
From F. R. Bigelow, flowers of Cactus triangularis.

From John Hovey, Dahlias, Roses, &c.
From Hovey & Co., a fine display of Green House plants. Also, Cut Flowers and Bouquets.

From Charles B. Shaw, Dedham, by T. Murray, five pots of Coxcombs, and one do. of Grass Amaranthus.

From Geo. C. Crowninshield, by John Quant, fine specimens of Green House Plants.

From Lewis Davenport, a great variety of fine Roses, Dahlias, &c.

From Parker Barnes, Cut Flowers, Dahlias, &c. Also, a large Grass Bouquet, Design, &c.

From Warren's Gardens, by J. Cadness, a large collection of Plants.

From O. H. Mathers, by T. Needham, a variety of fine Pot Plants.

From H. T. Haseltine, Asters, Verbenas, Cockscombs, &c.

From J. Mann and Mrs. E. Parker, fine Grass Bouquets.

From Wm. Kenrick, by Mrs. Russell, an arbor Design.

From Mrs. J. Dyer, a handsome Design.

From M. E. C. Brown, J. Shekeen, Miss Kenrick, Miss Mary Kenrick, and J. Gilmore, Designs of various sorts.

From John Parker, very fine Dahlia.

From Joseph Breck & Co., Dahlias, and other Cut Flowers.

From James Nugent, Dahlias, Roses and Bouquets.

From B. K. Bliss, Springfield, two fine Cockscombs, and a Design.

The committee have not received the names of many plants contributed, some of which were very fine, nor do they know from whence they came.

VEGETABLES EXHIBITED.

From J. E. Teschemacher, East Boston, New Cabbage—sown 19th of April, in the open ground; only manure, one tablespoonful of guano; the finest flavored, and the most delicate of the Cabbage tribe; have been grown of 15 lbs. wt.—introduced and distributed by Mr. Teschemacher, in 1847. Sprouts from the same. New Cabbage—Early Northern; seed from St. Petersburg, Russia, received by the kindness of Horatio R. Storer; sown in the open ground, 19th April; ready for table, 9th July. Sprouts of the same. New String Bean—seed from California; sown first week in June; first gathering, 1st of August. The same plants continue to produce abundantly till the frost; the specimen exhibited flowers, young beans and ripe seed on the same stem; extremely tender; flavor very delicate; grows about three feet high; introduced by Mr. T. White Beet root, from which sugar is extracted in France and Germany. Seed from France, 1848. Onions, Carrots and Scotch Kale,—exhibited, also, to show the action of guano. All these vegetables were raised on a very poor soil, which has had no manure for three successive years but guano, at the rate of about 400 pounds to the acre.

From James Cruickshanks, German Curled Greens, or Scotch Kale; Scotch Flag Leek; Bassano Beet; Early Horn Carrot; Stringham do.; Orange do.; brace Douglass Champion Cucumber, new; brace Victory of England do.; Lima Beans, for table; quantity of do. ripe; Custard Winter Squash, Marrow do., Club do.

From D. Denny, Dorchester, Drumhead Cabbages.

From G. C. Crowninshield, by John Quant, Celery and Egg Plants.

From Lewis Davenport, Milton, a peck of sweet potatoes.

From Elbridge Tufts, Cambridgeport, Canada Squash, Crooknecked Striped do., six from one seed.

From Nahum Stetson, South Bridgewater, Mammoth Tomato; Club Gourd.

From F. W. Macondry, Dorchester, Pumpkins; Blood Beet, Sugar do.; Marrow Squash, White Crooknecked do., Canada Crooknecked do.; Royal Cape Lettuce; Orange Carrot; Large Dutch Parsnip; Corn; Sugar Pumpkin; Drumhead Cabbage; Pea Beans, Horticultural do., Seva do., Early China do., Russian bush do., Lima do.; Cucumber; Seymour Celery; three varieties of Tomatoes, and thirty-four varieties of Potatoes.

From S. W. Cole, Chelsea, Potatoes, viz: Hill's Early, Egg, White Kidney, Knevet's Defiance, Holmes's Early, White Bluenose, Hall's Early, Early June, Wait's Oval, Light Chenango, Chenango, Superior Chenango, do. do., White Chenango, Carter, Snowball, Victoria, Wait's Round, Kidney, St. Helena, Hancock, Butman, Long White, Wait's Long, Longneck, Apple, Mohawk or Seal's foot, Black, Peach Blow, Rohan, Calico, Waterloo, Cranberry, Clinton White, American Blues, Prince Edward, Michigan, Connecticut, Orange, Prince Albert, Pinkeye, Parker's Seedling, Stockbridge, Dean, Lady's Finger, four varieties nameless, and thirty-seven seedling Potatoes, of 1848. Crooknecked Squash, Marrow do., Blood Beet.

From Herbert S. Cole, a basket of Potatoes, of various kinds.

From A. D. Williams & Son, Roxbury, Pumpkins, Blood Beet, Carrots, Ruta Baga, Drumhead Cabbage, Savoy do., Salsify, Canada Squash, Marrow do., Celery, Turnip Beet, Tomatoes, Corn.

From George Pierce, W. Cambridge, Purple Brocoli, Giant Celery, Red Cabbage, White Cauliflower, Marrow Squashes.

From John Albree, Newton Corner, Egg Plants.

From Daniel Brims, Roxbury, Celery.

From Alex. McLennan, Watertown, Egg Plants.

From Messrs. Hovey & Co., Sealsfoot Potato,

Shepherd's Early do.

From Azell Bowditch, Roxbury, Savoy Cabbage,

Northern do., Drumhead do., Sweet Corn, Yellow do., Gourd.

From Benj. V. French, Braintree, Early June Potatoes, Hill's Early do., Knevet's Defiance do., Blood Beet, Yellow Turnip do., Turnip Blood do., Mangel Wurtzel, Purple Egg Plant, White do. A fine specimen of Egyptian Wheat.

From Mrs. Spaulding, South Reading, Blood Beets.

From John Schouler, W. Cambridge, by J. Gilmore, Blood Beets.

From N. N. Dyer, S. Abington, two Canada Crookneck Squashes, two years old.

From Pickering Dodge, Salem, two German Cabbages.

From Warren's Gardens, Brighton, a bouquet of Egyptian Wheat, Snake Cucumber, Yard Bean.

From J. Balch, jr., Roxbury, Tomatoes.

PREMIUMS AND GRATUITIES.

BASKETS OF FRUIT.—For the best basket of Fruit,

to Otis Johnson, \$10.—For the second best, to Messrs. Hovey & Co., \$7.

PEARS.—For the best twelve varieties of Pears, consisting of twelve specimens each, the first premium to Samuel Walker.—The second premium, to Hovey & Co.—Third premium, to Josiah Lovett.

For the best dish of Pears—First premium to James Adams, for his dish of fine Seckles.—For second best dish, to Samuel Pond, for his dish of Dix Pears

The Committee recommend gratuities of the Society's Medal, of five dollars, to the following named persons, for beautiful specimens of Pears.

John Gordon, Fred. W. Macondry, Ralph Crooker, Henry Vandine, C. Newhall, Alfred A. Andrews, Enoch Bartlett.

And they further recommend a gratuity of a Gold Medal, or piece of Plate, of the value of Twenty-five Dollars, to Marshall P. Wilder, President of the Society—also, a gratuity of like value, to Robert Manning, of Salem, for the extensive collection of Pears exhibited by those gentlemen.

GRAPES.—To George R. Russell, for the best five varieties, \$15.—To Thomas Needham, for the best three varieties, \$10.—To J. F. Allen, for the best two varieties, \$7.—To Nahum Stetson, for the best one variety, \$5.

The Committee recommend a gratuity of fifteen dollars to J. F. Allen, for his extensive collection of Grapes, many of which are new varieties. Also, to Otis Johnson, B. D. Emerson, and James Arnold, of New Bedford, the Society's Medals, of five dollars each, for their well grown specimens.

APPLES.—For the best twelve varieties, of twelve specimens each, to J. L. L. F. Warren, the Society's Plate of \$25.—For the second best do., to Messrs. Hyde, \$10.—For the third best do., to E. Tufts, \$5.

Gratuity for the largest collection.—To Benj. V. French, the Society's Medal or Plate, of \$25.

For the best basket of Fall Apples, to George Pierce, \$6.—For the second best do., to Josiah Stickney, \$4.

The committee would beg leave to mention the following exhibitors as deserving of a gratuity of the Society's Medal, of five dollars each, for beautiful specimens, viz.: James Eustis, A. D. Weld, Anson Dexter, Hovey & Co., A. D. Williams & Son, R. Manning and A. Hall.

FLOWERS.—The Judges on Flowers, report and recommend as follows:

POT PLANTS.—For the best collection, to John Cadness, \$15.—For the second best do., to John Quant, \$10.—For the third best do., to Hovey & Co., \$8.—For the fourth best do., to Messrs. Winship, \$5.

COCKSCOMBS.—First premium, to James Nugent, \$3.—Second premium, to Alex. McLennan, \$2.

DOUBLE BALSAMS.—First premium, to James Nugent, \$3.

The Judges recommend a gratuity of ten dollars to Thomas Willot, for a fine display of plants, and to Thomas Cowen, for a fine plant of Araucaria excelsa, three dollars.

BOUQUETS.—*Vase Bouquets.*—For the best pair for the Bradlee Vases, to Thomas Cowen, \$10.—Second premium, to Hovey & Co., \$6.—For the best pair for the Society's Vases, to Hovey & Co., \$10.—Second premium, to E. A. Story, \$6.

Mantel Bouquets.—For the best pair, to John Cadness, \$8.—For the second best do., to James Nugent, \$6.—For the third best do., to E. A. Story, \$5.

The Judges recommend the following gratuities, viz.:—For Grass Bouquets and Designs, five dollars each, to Miss H. Barnes, Mrs. J. Mann, Mr. M. E. Parker, Mr. J. Dier, Miss Russell, and J. Sheen. To Miss H. Barnes, and Mrs. E. C. Brown,

two dollars each; to Miss Mary Kenrick, and J. Gilmore, one dollar each.

Also, to John Cadness, for a splendid pair of Bouquets, ten dollars.

The Flower Committee recommend a gratuity of five dollars to Lewis Davenport, for a fine display of Roses.

VEGETABLES.—The committee to whom was assigned the duty of awarding premiums on Vegetables, at the Annual Exhibition, submit the following report:

For the best display and greatest variety of Vegetables, to F. W. Macondry, \$10.—Second do., to A. D. Williams, \$6.

GRATUITIES.—To S. W. Cole, for a fine show, consisting of forty-five varieties of Potatoes, thirty-seven of which were seedlings of 1848, \$10.

To George Pierce, for fine Blue and White Brocoli, \$5.

To Daniel Brims, for fine Celery, \$5.

To J. E. Teschemacher, for a fine display of Vegetables, many of them new, \$5.

To James Cruickshanks, for a fine display of Vegetables, \$3.

To A. Bowditch, for fine Cabbages, \$2.

To A. McLennan, for superior Egg Plants, \$2.

To E. Cameron, for the largest Drumhead Cabbages, \$2.

To N. Stetson, for large Tomatoes, \$1.

To B. V. French, and Hovey & Co., for a fine show of Potatoes, \$1 each.

At no former exhibition has there been so fine a display of Vegetables. The committee would congratulate the Society on the increased interest manifested in this department, and hope that it will be an encouragement to future efforts.

BUSINESS MEETINGS.

Nov. 4.—A communication was received from R. BUNNELL, Bridgeport, Ct., in relation to a preventive against the attacks of the curculio, which was referred to the Committee on Fruits.

Nov. 18.—Mr. Walker submitted the following:

Horticultural Hall, Boston, Nov. 11, 1848.

TO EBENEZER WIGHT, Esq.—Sir: In pursuance of a vote of the Massachusetts Horticultural Society, passed at a stated meeting, held on the second day of January, and in behalf of the committee appointed at the same time, who were instructed with carrying its object into effect, I have the honor herewith to present you with the accompanying piece of Plate. You will please to accept it as a token of the acknowledged esteem of the society, for your assiduous and unwearied zeal in the performance of the duties so long incumbent upon you, as the Recording Secretary of the institution.

Allow me to express, sir, as the wish of the committee, that this memorial may ever serve to recall to your memory pleasing reminiscences of the past, and to cheer and stimulate you in all your present and future exertions, in support of that science, to whose advancement our society and its numerous members are deeply devoted. Per order.

SAMUEL WALKER,
Chairman.
Boston, Nov. 13th, 1848.

SIR—I received the piece of Plate, referred to in your letter of the 11th inst. with grateful emotions, as a memento of the friendly regard of the members of the Massachusetts Horticultural Society. Please return to them my sincere thanks for their munificent gift.

In looking back to the time passed as their Recording Secretary, I call to mind many names among the most devoted and successful cultivators of horticultural science, and number, among my associates in those hours, men dear to intellectual and social progress.

I shall long remember, with increased satisfaction, the kind and felicitous words in which you have expressed to me the wishes of the society. Your ob't servant,

EBENEZER WIGHT.

To Samuel Walker, Esq., *Chairman.*

[The report of the proceedings at the business meetings of the society, came to hand at so late an hour, that the remainder is necessarily deferred till our next.]

Horticulturist

AND

JOURNAL OF RURAL ART AND RURAL TASTE.

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No. 7.

No one loves the country more sincerely, or welcomes new devotees to the worship of its pure altars more warmly, than ourselves. To those who bring here hearts capable of understanding the lessons of truth and beauty, which the GOOD CREATOR has written so legibly on all his works; to those in whose nature is implanted a sentiment that interprets the tender and the loving, as well as the grand and sublime lessons of the universe, what a life full of joy, and beauty, and inspiration, is that of the country; to such,

— "The deep recess of dusky groves,
Or forest where the deer securely roves,
The fall of waters, and the song of birds,
And hills that echo to the distant herds,
Are luxuries, excelling all the glare
The world can boast, and her chief fav'rites share."

There are those who rejoice in our Anglo-Saxon inheritance of the love of conquest, and the desire for boundless territory,—who exult in the "manifest destiny" of the race, to plant the standard of the eagle or the lion in every soil, and every zone of the earth's surface. We rejoice much more in the love of country life, the enjoyment of nature, and the taste for rural beauty, which we also inherit from our Anglo-Saxon forefathers, and to which, more than all else, they owe so many of the peculiar virtues of the race.

With us, as a people, retirement to country life, must come to be the universal pleasure of the nation. The successful statesman, professional man, merchant, trader, mechanic,—all look to it as the only way of enjoying the *otium cum dignitate*; and the great beauty and extent of our rural scenery, as well as the absence of any great national capital, with its completeness of metropolitan life, must render the country the most satisfactory place for passing a part of every man's days, who has the power of choice.

It is not to be denied, however, that "retirement to the country," which is the beau-ideal of all the busy and successful citizens of our towns, is not always found to be the elysium which it has been fondly imagined. No doubt there are good reasons why nothing in this world should afford perfect and uninterrupted happiness.

"The desire of the moth for the star"
might cease, if parks and pleasure-grounds could fill up the yearnings of human nature, so as to leave no aspirations for futurity.

But this is not our present meaning. What we would say is, that numbers are disappointed with country life, and perhaps leave it in disgust, without reason, either from mistaken views of its nature, of their own capacities for enjoying it, or a want of practical ability to govern it.

We might throw our views into a more concrete shape, perhaps, by saying that the disappointments in country life arise chiefly from two causes. The first, is from *expecting too much*. The second, from *under-taking too much*.

There are, we should judge from observation, many citizens who retire to the country, after ten or twenty years' hard service in the business and society of towns, and who carry with them the most romantic ideas of country life. They expect to pass their time in wandering over daisy spangled meadows, and by the side of meandering streams. They will listen to the singing of birds, and find a perpetual feast of enjoyment in the charm of hills and mountains. Above all, they have an *extravagant* notion of the purity and the simplicity of country life. All its intercourse, as well as all its pleasures, are to be so charmingly pure, pastoral and poetical!

What a disappointment, to find that there is *prose* even in country life,—that meadows do not give up their sweet incense, or cornfields wave their rich harvests without care,—that “work-folks” are often unfaithful, and oxen stubborn, even an hundred miles from the smoke of towns, or the intrigues of great cities.

Another, and a large class of those citizens, who expect too much in the country, are those who find, to their astonishment, that the country is *dull*. They really admire nature, and love rural life; but, though they are ashamed to confess it, they are “bored to death,” and leave the country in despair.

This is a mistake which grows out of their want of knowledge of themselves, and, we may add, of human nature generally. Man is a *social*, as well as a reflective and devout being. He must have friends to share his pleasures, to sympa-

thize in his tastes, to enjoy with him the delights of his home, or these become wearisome and insipid. COWPER has well expressed the want of this large class, and their suffering, when left wholly to themselves:—

“I praise the Frenchman; his remark was shrewd,—
How sweet, how passing sweet, is solitude!
But give me still a friend, in my retreat,
Whom I may whisper—solitude is sweet.”

The mistake made by this class, is that of thinking only of the beauty of the *scenery* where they propose to reside, and leaving out of sight the equal charms of good society. To them, the latter, both by nature and habit, is a *necessity*, not to be wholly waived for converse of “babbling brooks.” And since there are numberless localities where one *may* choose a residence in a genial and agreeable country neighborhood, the remedy for this species of discontent is as plain as a pike-staff. One can scarcely expect friends to follow one into country seclusion, if one will, for the sake of the picturesque, settle on the banks of the Winipissiogee. These latter spots are for poets, artists, naturalists; men, between whom and nature there is an intimacy of a wholly different kind, and who find in the structure of a moss or the flight of a water fowl the text to a whole volume of inspiration.

The third class of the disappointed, consists of those who are astonished at the *cost* of life in the country. They left town not only for the healthful breezes of the hill-tops, but also to make a small income do the business of a large one. To their great surprise, they find the country *dear*. Everything they grow on their land costs them as much as when bought, (because they produce it with *hired* labor;) and everything they do to improve their estate, calls for a mint of money, because with us labor is always costly. But, in fact, the great secret of the matter is this; they

have brought as many as possible of their town habits into the country, and find that a moderate income, applied in this way, gives less here than in town. To live economically in the country, one must adopt the rustic habits of country life. Labor must be understood, closely watched, and even shared, to give the farm products at a cost likely to increase the income; and *patés de foie gras*, or *perigord pies*, must be given up for boiled mutton and turnips. (And, between them and us, it is not so difficult as might be imagined, when the mistress of the house is a woman of genius, to give as refined an expression to country life with the latter as the former. The *way* of doing things is, in these matters, as important as the means.)

Now a word or two, touching the second source of evil in country life,—undertaking too much.

There is, apparently, as much fascination in the idea of a large landed estate as in the eye of a serpent. Notwithstanding our institutions, our habits, above all the continual distribution of our fortunes, everything, in short, teaching us so plainly the folly of improving large landed estates, human nature and the love of distinction, every now and then, triumph over all. What a homily might there not be written on the extravagance of Americans! We can point at once to half a dozen examples of country residences, that have cost between one and two hundred thousand dollars; and every one of which either already has been, or soon will be, enjoyed by others than those who constructed them. This is the great and glaring mistake of our wealthy men, ambitious of taste,—that of supposing that only by large places and great expenditures can the problem of rural beauty and enjoyment be solved. The truth is, that with us, a large fortune does not and cannot (at least, at the present time,) produce the

increased enjoyment which it does abroad. Large estates, large houses, large establishments, only make slaves of their possessors; for the service, to be done daily by those who must hold aloft this dazzling canopy of wealth, is so indifferently performed, servants are so time-serving and unworthy in this country, where intelligent labor finds independent channels for itself, that the lord of the manor finds his life overburdened with the drudgery of watching his drudges.

Hence, the true philosophy of living in America, is to be found in moderate desires, a moderate establishment, and moderate expenditures. We have seen so many more examples of success in those of even less than moderate size, that we had almost said, with COWLEY,—“a little cheerful house, a little company, and a very little feast.”

But among those who undertake too much, by far the largest class is that whose members do so through *ignorance* of what is to be done.

Although the world is pretty well aware of the existence of professional builders and planters, still the majority of those who build and plant, in this country, do it without the advice of experienced persons. There is, apparently, a latent conviction at the bottom of every man's heart, that he can build a villa or a cottage, and lay out its grounds in a more perfect, or, at least, a *much more* satisfactory manner than any of his predecessors or contemporaries. Fatal delusion! One may plead his own case in law, or even write a lay sermon, like Sir WALTER SCOTT, with more chance of success than he will have in realizing, in solid walls, the *perfect model* of beauty and convenience that floats dimly in his head. We mean this to apply chiefly to the production as a work of art.

As a matter of economy, it is still worse. If the improver selects an experienced architect, and contracts with a responsible and trustworthy builder, he knows within 20 per cent., at the farthest, of what his edifice will cost. If he undertakes to play the amateur, and corrects and revises his work, as most amateurs do, while the house is in progress, he will have the mortification of paying twice as much as he should have done, without any just satisfaction at last.

What is the result of this course of proceeding of the new resident in the country? That he has obtained a large and showy house, of which, if he is alive to improvement, he will live to regret the bad taste; and that he has laid the foundation of expenditures far beyond his income.

He finds himself now in a dilemma, of which there are two horns. One of them is the necessity of laying out and keeping up large pleasure-grounds, gardens, &c., to correspond to the style and character of his house. The other is to allow the house to remain in the midst of beggarly surroundings of meadow and stubble; or, at the most, with half executed and miserably kept grounds on every side of it.

Nothing can be more unsatisfactory than either of these positions. If he is seduced into expenditures *en grand seigneur*, to keep up the style in which the mansion or villa has been erected, he finds that instead of the peace of mind and enjoyment which he expected to find in the country, he is perpetually nervous about the tight place in his income,—constantly obliged to make an effort to maintain that which, when maintained, gives no more real pleasure than a residence on a small scale.

If, on the other hand, he stops short, like a prudent man, at the mighty show of figures at the bottom of the builder's accounts, and leaves all about in a crude and

unfinished condition, then he has the mortification, if possessed of the least taste, of knowing that all the grace with which he meant to surround his country home, has eluded his grasp; that he lives in the house of a noble, set in the fields of a sluggard. This he feels the more keenly, after a walk over the grounds of some wiser or more fortunate neighbor, who has been able to sweep the whole circle of taste, and, better advised, has realized precisely that which has escaped the reach of our unfortunate improver. Is it any marvel that the latter should find himself disappointed in the pleasures of a country life?

Do we thus portray the mistakes of country life in order to dissuade persons from retiring? Far from it. There is no one who would more willingly exhibit its charms in the most glowing colours. But we would not lure the traveller into an Arcadia, without telling him that there are not only golden fruits, but also others, which may prove sodom-apples if ignorantly plucked. We would not hang garlands of flowers over dangerous pits and fearful chasms. It is rather our duty and pleasure loudly to warn those who are likely to fall into such errors, and to open their eyes to the danger that lies in their paths; for the country is really full of interest to those who are fitted to understand it; nature is full of beauty to those who approach her simply and devoutly; and rural life is full of pure and happy influences, to those who are wise enough rightly to accept and enjoy them.

What most retired citizens need, in country life, are objects of real interest, society, occupation.

We place first, something of permanent interest; for, after all, this is the great desideratum. All men, with the fresh breath of the hay-fields of boyhood floating

through their memory, fancy that *farming* itself is the grand occupation and panacea of country life. This is a profound error. There is no *permanent* interest in any pursuit which we are not successful in; and farming, at least in the older states, is an art as difficult as navigation. We mean by this—*profitable* farming, for there is no constant satisfaction in any other; and though some of the best farmers in the Union are retired citizens, yet not more than one in twenty succeeds in making his land productive. It is well enough, therefore, for the citizen about retiring, to look upon this resource with a little diffidence.

If our novice is fond of horticulture, there is some hope for him. In the first place, if he pursues it as an amusement, it is inexhaustible, because there is no end to new fruits and flowers, or to the combinations which he may produce by their aid. And besides this, he need not draw heavily on his banker, or purchase a whole township, to attain his object. Only grant a downright taste for fruits and flowers, and a man may have occupation and amusement for years, in an hundred feet square of good soil.

Among the happiest men in the country, as we have hinted, are those who find an intense pleasure in nature, either as artists or naturalists. To such men, there is no weariness; and they should choose a country residence not so much with a view to what can be made by improving it, as to *where* it is, what grand and beautiful scenery surrounds it, and how much inspiration its neighborhood will offer them.

Men of society, as we have already said, should, in settling in the country, never let go the cord that binds them to their fellows. A suburban country-life will most nearly meet their requirements; or, at least, they should select a site where some

friends of congenial minds have already made a social sunshine in the “wilderness of woods and forests.”

Above all, we should counsel all persons not to *underrate* the cost of building and improving in the country. Do not imagine that a villa, or even a cottage ornée, takes care of itself. If you wish for rural beauty, at a cheap rate, either on the grand or the moderate scale, choose a spot where the two features of home scenery are trees and grass. You may have five hundred acres of natural park—that is to say, fine old woods, tastefully opened, and threaded with walks and drives, for less cost, in preparation and annual outlay, than it will require to maintain five acres of artificial pleasure-grounds. A pretty little natural glen, filled with old trees, and made alive by a clear perennial stream, is often a cheaper and more unwearying source of enjoyment than the gayest flower garden. Not that we mean to disparage beautiful parks, pleasure-grounds, or flower gardens; we only wish our readers, about settling in the country, to understand that they do not constitute the highest and most expressive kind of rural beauty,—as they certainly do the most *expensive*.

It is so hard to be content with simplicity! Why, we have seen thousands expended on a few acres of ground, and the result was, after all, only a showy villa, a greenhouse, and a flower garden,—not half so captivating to the man of true taste as a cottage embosomed in shrubbery, a little park filled with a few fine trees, a lawn kept short by a flock of favorite sheep, and a knot of flowers woven gaily together in the green turf of the terrace under the parlor windows. But the man of wealth so loves to astonish the admiring world by the display of riches, and it is so rare to find those who comprehend the charm of grace and beauty in their simple dress!

EXPERIMENTAL FRUIT CULTURE.

BY T. G. YEOMANS, WALWORTH, N. Y.

I HAVE, from the commencement, been an attentive reader of the *Horticulturist*, and most especially interested in such portions of it as relate to the cultivation of trees, and choice fruits.

I propose to occupy the attention of your readers, a few moments, with some account of my experience, during the last three years, in enriching the soil and growing trees.

In September, 1845, I purchased a piece of ground, from which had been cut a crop of wheat in July of that year; the land had never been manured—the soil a strong loam. During the same autumn, I drew on to 15 acres of this land, about 450 wagon loads of swamp muck, leaving it in piles of one load each. I then drew from an old ashery as many loads of leached ashes,—putting a load of ashes on every load of muck.

I then spread the whole evenly over the ground, and ploughed it pretty deeply, though not with a subsoil plough. I next proceeded to plant about 700 apple and peach trees on seven acres of the ground, setting half of each, and alternately in the rows each way, and twenty feet from each other; about 500 were set in November, and 200 in April following. In planting the trees, I prepared the places large enough to receive the trees properly, and then procured and placed by each hole thus prepared one shovelfull of swamp muck, one of leached ashes, and one of fine charcoal dust; these I mixed well with fine mould, or surface soil, and with this mixture planted the trees.

The trees, thus planted in the fall, were

“shortened-in” about March, cutting away half or two-thirds of the [terminal growth of the] branches; and the 200, set in the spring, were shortened in the same manner when set. Of the 500 trees thus planted in the fall, 6 or 7 died the first winter; and they were set in the wettest part of the ground; and to the wet and freezing weather, without the usual quantity of snow, I attribute their loss. With this slight exception they all grew finely; some of the peach trees forming branches the first year four feet in length. There was no perceptible difference between those planted in the fall and spring.

Of this seven acres of ground, thus planted to orchard, I planted about six acres in the spring to nursery trees, such as apples, grafted in the root, peach pits, apple seeds, cherry and pear stocks; and a portion of the balance I planted with beets and carrots. The beets and carrots were well hoed till they covered the ground sufficiently to keep the weeds down. The nursery planted on the six acres, was kept well worked during the whole season with plough, cultivator and hoe. The orchard trees on the nursery ground grew more than twice as much the first season as on the ground planted to beets and carrots; and this difference I attribute—not to the beets and carrots, drawing more from the soil than the young trees, as many supposed—but to the difference in the manner of cultivating them, and the continued cultivation of the nursery trees till fall.

And this conclusion will be made more clear, by stating that the row of beets and carrots adjoining the nursery trees, and be-

tween which and the trees the plough and cultivator were used, were more than twice as large as those in any other row. This result convinced me fully of the great importance of *frequent, thorough, and deep* cultivation.

The second year, (1847,) I planted the ground on which the beets and carrots grew, to corn, leaving an open space about each tree equal to eight hills of corn, which I planted to potatoes. The trees did tolerably well, but did not grow more than those in the nursery grew the first year. This year, 1848, I sowed to oats the same corn ground, keeping a spot about three feet in diameter hoed about each tree till the oats came off; this year the trees grew less than last, and are not now much larger than those in the nursery ground were at the end of one year from the time of planting.

The orchard trees planted on the nursery ground have grown very rapidly, and produced, this autumn, about thirty or forty bushels choice peaches; and the nursery trees have grown well. I may also remark, respecting the nursery peach trees, that in taking them up (and I have taken up more than 25,000 of them,) I think that not one in a hundred appear to have been touched

by the peach worm, while, on similar land in this immediate vicinity, to which ashes has not been applied, a very large portion of young peach trees are very much injured, and many entirely destroyed by the worm.

My orchard peach trees on that ground have also entirely escaped the worm, while, on other parts of my ground, my trees are much injured by them.

A portion of the 15 acres enriched with muck and ashes, was sowed to barley in 1846, and produced a large crop. It was again sowed to wheat in the fall of 1846, and produced 30 bushels per acre. This year, 1848, I planted four acres of the wheat ground, to corn; about one acre of which was ploughed last fall with a subsoil plough, and the four acres yielded, on an average, 179 bushels of ears of sound corn per acre. That part which had been subsoiled was considerably the best.

The peaches grown on my trees in my nursery grounds, among the small trees, were about a week later in ripening than the same varieties in my garden, where the ground was more fully exposed to the sun. Respectfully,

T. G. YEOMANS.

Walworth, Nov. 13, 1848.

PEAR BLIGHT.

BY J. W. BISSELL, ROCHESTER, N. Y.

It is much easier to doubt the opinions or reasons of others, than to give better; it is easier to say that the pear blight, known here as the fire-blight, is not caused by frozen sap, than to give the cause.

This blight has been very destructive the past summer, in some sections of this city and vicinity, while others have entirely

escaped. Scarcely any trees lying north of a line parallel with the main street of the city, and about half of a mile distant therefrom, have been attacked this year, while south of that line, on all soils, it has carried dismay to the hearts of many cultivators and amateurs. Several years since, that district which is now exempt, was se-

verely scourged. I have this year lost more than one hundred and fifty fine standards, part on quince and part on pear stocks, out of about eight hundred; and some of my neighbors have suffered in greater proportion. Some of these trees belonged to the nursery, and were set among young cherry trees, so that the sun could, neither in winter or summer, have had any effect upon them. The trees were as well shaded this summer as if they had been sheathed with straw, (as recommended by one of your correspondents,) and the ground had been well mulched, so that the supply of moisture at the roots was uniform. Some of them grew finely, others not at all; yet, a common fate awaited them—one was taken, and another left. Perhaps this was caused by frozen sap in immature wood, although it was apparently well matured. But the losses in another lot, composed of six hundred fine imported dwarfs, which were set in May last, and which were shipped from Paris on the 27th day of February, must be attributed to some other cause; for I understand this disease to be American, and not known in France. Their growth in the nursery where they were raised, had not been rank; the wood was apparently well matured, and most of that made last year was cut off. They were set 8 feet apart for specimen trees, and summer pruned by pinching off the leaders. I examined them carefully two or three times each week during the summer, and immediately cut off at the ground, or pulled up, every one showing the least blight. During July and August, the disease commenced in the succulent wood of this year, and extended downwards; in September and October it attacked the bodies of the trees, and could not be perceived in the branches either externally or internally. By much experience, and without cutting, I could discern

that some trees were entirely ruined, when most persons would have said that they were in perfect health. There was a peculiar appearance in the bark that showed all was not right, and an incision would always confirm it. In all cases the sap and bark smelled very sour; so much so, that many times, in walking among the trees, I have discovered by the odor that some new one was affected, and had merely to follow my nose to find it. Sometimes this odor was perceptible at a distance of twenty feet or more.*

In two rows of these same imported dwarfs, containing fifty trees each, and set about one foot apart in the row where the affected trees were not removed, every one blighted. From another row, similarly planted, where each one was dug up as soon as it became diseased, we lost but few. Yet Mr. Hooker has in vain tried to affect healthy trees by inoculating them with buds and sap from some of the worst cases. Is it infectious, and not contagious?

I send you part of the body and branches of a White Doyenné tree, about eight years old, which has borne fruit three years, and this year a fine crop of as beautiful specimens as you ever saw. It has grown but moderately. Last year the season was dry; consequently the shoots were short and ripened early. This year it made a fair quantity of wood, all of which was cut in August for buds. The fruit was picked the last of September. A few days afterwards, I noticed one morning that a dormant bud had started on the body of the tree, at a point marked X. This I pinched off, and examined the tree very carefully by cutting through the bark, because the starting of this bud had surprised me; but I found all in a natural condition. In three hours af-

* When the trunk is attacked, it can often be seen from as great a distance, and before a single leaf hangs out a signal of distress.

terwards the tree was blighted entirely around the body, and for some distance above and below where this bud had started. Was this frozen sap?

I should explain to you that the bark is now discolored by a composition of nitre, copperas and potash, that we applied to it. One morning a small spur on the *north* side of, and on the trunk of a Madeleine tree, about the same size as this Doyenné, was discovered to be blighted. In the afternoon the blight had extended about three inches above and below this spur. The next day it progressed about as much farther; it was several days before it extended around the tree, so as to reach the south side. The top is not yet affected, except by loss of sap from this girdling. A Julienne was affected precisely in the same way. Were these caused by frozen sap? If yes, why should it all be deposited in a diminutive spur, while a vigorous top escapes?

Among other dwarf trees, planted in the spring of 1847, was one White Doyenné, with so few roots that it needed to be staked to keep from falling down by its own weight. With much care it barely lived, but it did not make the least wood. This year it bore three beautiful pears; and after they were picked, it blighted dead,—perhaps from grief, certainly not from frozen sap in young wood. I would furnish you many more cases, but it makes me feel too sad when I think about them. Mr. HOVEY said he should put on mourning if his standards thus died.

All these trees stood upon a knoll of sandy loam, with like subsoil, in some places rich, in others not; in some places specially manured, in others not. Throughout the whole, both soil and subsoil are well drained, and no pear root was ever suspected of penetrating as deep as it is necessary to dig there to find water.

I do not believe that frozen sap has spoiled any of our trees; neither do I adopt any other theory.

The wash mentioned as having been applied to trees, sometimes had a good effect. It always stopped the musty, vinegar smell, and generally arrested the blight—sometimes only for a short time; in other cases the trees would die in spite of all our doses. The idea of applying it was suggested by the fact that the disease appeared to be located between the epidermis and liber, and not in the cambium. It was often stopped by shaving off the outer bark as far as any discolored matter could be seen; and this discoloring could always be traced farther in the outer bark than the inner. In other cases, this shaving produced no effect.

We keep a journal of all such matters; and I hope, next season, to send you the result of several experiments connected with this and other subjects. J. W. BISSELL.

Rochester, Nov., 1848.

REMARKS.—We thank Mr. BISSELL for these interesting facts, which he has laid before us.

His observations would seem to prove that the disease, as known upon his grounds, did not arise from frozen sap.

Our readers who have pursued this subject, as treated in this magazine, will have noticed that we are convinced that the two most disastrous forms of pear blight arise from frost in winter, (frozen sap,) and from the sudden effects of the sun's rays in summer, after a shower, (sun-blight.)

We have satisfied ourselves, we repeat, that malignant pear tree blight originates in these two modes; but, as Mr. BISSELL, Dr. WENDELL, and other correspondents have shown, they are not sufficient to account for the rapid and singular mortality, which sometimes occurs in pear plantations affected by this disease.

The array of facts now presented, regarding this malady, seem to leave scarcely a doubt that malignant pear blight is an *infectious* disease.

We observe that European physiologists have decided that a certain class of vegetable diseases are infectious. "The diseased cells of a vegetable are capable of communicating their diseased action to healthy cells, just as the cells from an animal, affected with the small pox, are capable of giving that disease to another."

It has also been ascertained that "in order that disease may be thus produced, it is not necessary that the contagious matter be conveyed from one plant to another in a tangible form; *but the diseased cells may be conveyed through the medium of the air.*"

Certain conditions of the atmosphere, as well as of the plants themselves, favor the development and spread of these epidemic diseases. Only a portion of the individual plants exposed will suffer,—some escaping, as among animals. And, like epidemic diseases among animals, it is rarely the case that diseases of this kind occur largely in the same districts in successive years.

Taking this view of the matter, the presence of a single tree, in Mr. BISSELL'S grounds, thoroughly diseased with infectious blight, would be sufficient to spread the disease among his whole plantation, provided, as appears to have been the case, the

condition of the atmosphere and of the trees were such as to facilitate its extension through the air.

The sudden appearance of this blight in healthy trees, and its rapid extension among trees which themselves had not, as our correspondent thinks, been exposed to any causes which would originate the blight, force us to look for an explanation in the *infectious* character of the disease.

The check given to its extension in the row of trees, where the diseased branches were cut out as fast as the symptoms appeared, compared with the other row where it was left to itself, seems to be a strong argument in favor of the infectious character of the disease. And, in the absence of any known specific, it is plain that close watching, with the constant removal and destruction of diseased branches, is as yet the most successful mode of checking its ravages.

We hope Mr. BISSELL will pursue his experiments with the disinfecting wash, and give us the results another season.

We will only remark, in conclusion, that the pear blight, (as we learn from a cultivator now abroad, who is familiar with the disease at home,) is common in the south of Europe, though, as in many parts of this country, it does not assume the highly malignant form which it sometimes takes in this country. Ed.

LEAVES AND ROOTS—THEIR FUNCTIONS AND STRUCTURE.

BY DR. JAMES PAUL, TRENTON, N. J.

To the practical and scientific cultivator, a knowledge of the organs of plants, their uses and functions, must not only be highly interesting, but most important. When we look at a plant, no matter how minute and

delicate, or how gigantic and magnificent its proportions, we behold a thing endowed with life, in which are various organs necessary to the sustentation and production of its several parts. Let us, for the pre-

sent, consider the structure and functions of those organs which more immediately call for observation, i. e., the leaves and roots; as it is in these that the most important changes take place, by means of which the produce of the plant is perfected, and upon which the agriculturist must bestow his attention, that he may reap his due reward.

The functions of the leaves are intricate and not easily understood. They are composed of numerous vessels, reticulated and interwoven, one with another—of cellular tissue, which fills up the intervening spaces—of a membranous covering—which, on the upper surface, allows of *transpiration*, which in plants may be compared to the insensible perspiration of the surface, and the humidity exhaled from the lungs of animals; and on the under surface, *stomata* or reservoirs, for the reception of certain gases which are contained in the atmosphere. Here, then, we shall find a most important part of the vegetable economy taking place; here, the sap of the plant is elaborated into the proper juices, the absolute article which that plant is to yield. Hence we can understand why the vigor of a plant depends upon the healthy green state and luxuriance of its leaves; and hence we can understand why a plant, having its leaves destroyed or eaten off, as soon as they are unfolded, cannot be expected to yield fruit in the following season.

Let us enter farther into the structure of the leaves. It must be plain, that if such important ends are to be gained in the leaves, we must expect an organization of a complex order. Yet, the subject admits of elucidation; and a few observations may divest it of much of its complexity.

It is not unlikely that the circulation of the sap in the leaf, may be compared to the capillary system in animals; and that

while some of the ascending vessels terminate in the returning vessels, yet that much of the juices are transferred from one to the other by inhibition. I have said that the leaf is composed of numerous vessels, interwoven through each other. Hence you will bear in mind that there are two sets of vessels here intermixed; the one, containing the sap which has ascended from the roots; the other, those which are to convey away that sap after it has been elaborated into the proper juice of the plant. It is in the leaves that the product of the plant is formed, that the ascending sap is elaborated or assimilated into the proper juice of the plant; and this is effected by the combined action of light, the solar ray, and the atmosphere,—affording a beautiful example of the wonderful and most effectual works of nature, a chemical laboratory in the minutest leaf, exceeding in beauty and design the most elaborate and ingenious of the works of art. Thus, to form our compound in the leaves, we derive the water, and inorganic constituents of plants, from the soil—the carbon and the nitrogen from the atmosphere.

The carbonic acid of the atmosphere is supposed to amount to, from a 1000th to 2000th part of its bulk. The atmosphere being composed of four parts of nitrogen and one part of oxygen,—having the small portion of carbonic acid gas already stated; carbonic acid gas, as the reader is no doubt aware, being a compound of one part of carbon to two parts of oxygen. Now the *stomata* or pores on the leaf, being open, inhale or receive the carbonic acid of the atmosphere; and as it is a peculiar property of the solar ray, acting upon green vegetable matter, to decompose carbonic acid gas, this chemical decomposition is effected in the *stomata*, the carbon permeates the sides of the vessels, is taken into,

and combines with the juices already there, while the oxygen is liberated in a free state.

Now carbon is the *absolutely necessary* ingredient required for the growth and substance of plants. It is that, in fact, which forms the *lignin*, or greatest portion of the wood, which, when burnt and divested of its extraneous matter, is carbon in its solid state. But we are now speaking of carbon in its *gaseous form*, which however is never formed, and cannot be realized pure, or in a free state; but always joined with some other gas or substance: thus, while floating in the atmosphere, it is in the form of carbonic acid gas. You are aware that this gas is most noxious and detrimental to animal life, and, but for this wise provision of nature, would accumulate in such quantities as to depopulate the world. But Almighty God, the great ruler of the universe, has ordained that this deleterious compound should be the very food and substance of every tree of the forest, and the grass which clothes the fields. In many of the natural processes of this life, and in decomposition after death, this gas is generated. When we breathe, we inhale an atmosphere of oxygen and nitrogen, with a very small proportion, as already stated, of carbonic acid gas; but we expire an air loaded with it. The act of combustion is to generate carbonic acid gas. Fermentation and decomposition, or putrefaction, all generate this noxious gas. Nay, the generating of this gas exists in the very act, whether of germination, vegetation, combustion, fermentation, or putrefaction. If, then, this gas, so destructive to the animal economy, is generated in such quantities, that if some means were not at hand to again resolve it into its elements, it would render the globe uninhabitable, it is gratifying to know that those means are at hand, in every leaf

which is exposed to the surrounding atmosphere. Light and sunshine are the two great influences which act on vegetable matter, in restoring to a proper state a deteriorated atmosphere; the former having the peculiar faculty of giving the green colour to vegetable matter; and the latter, by its influence on green vegetable matter, in decomposing carbonic acid gas,—the carbon being retained, and the oxygen set free. You are, of course, aware that oxygen is the grand supporter of animal life; without its aid and application, animal life would quickly become extinct. It is the supporter of combustion; and its presence is required in the germination of seeds, and the vegetation of plants.

The leaves, then, are the organs of assimilation. In them the sap, having in solution the inorganic constituents of the plant derived from the soil, and deriving the carbon, which has been retained in the stomata, from the atmosphere, as also its nitrogen, elaborated now into the proper juices of the plant, returns through the descending vessels, on the inner side of the bark to the root.

On the subject of the carbon being derived from the atmosphere, Prof. LIEBIG says—"It is not denied that manure exercises an influence upon the development of plants; but it may be affirmed, with positive certainty, that it neither serves for the production of carbon, nor has any influence upon it, because we find that the quantity of carbon produced by manured lands is not greater than that yielded by lands which are not manured. The discussion as to the manner in which manure acts has nothing to do with the present question, which is, *the origin of carbon*. The carbon must be derived from other sources; and as the soil does not yield it, it can only be extracted from the atmosphere."

Relative to the nitrogen of plants, Prof. LIEBIG states—"Plants, and consequently animals, must therefore derive their nitrogen from the atmosphere." And again, he says—"Nitrogen is found in *lichens* which grow on basaltic rocks. Our fields produce more of it than we have given them as manure; and it exists in all kinds of soils and minerals which were never in contact with organic substances. The nitrogen in these cases could only have been extracted from the atmosphere." "No conclusion can, then, have a better foundation than this, that it is the ammonia of the atmosphere which furnishes nitrogen to plants."

I have already said, that the stomata of the leaves, as it were, *inhale* the carbonic acid gas of the atmosphere, where it undergoes decomposition, retaining the carbon, and, as it were, *exhaling* the oxygen. This, by the older physiologists, was compared to the breathing of animals. Hence, the leaves were termed the lungs of plants, the organs of breathing, or of respiration.

Let us now turn our attention to the roots of plants. The true roots of plants are the radiculæ, or fimbriæ,—the rootlets, striking out at all points from the stem and branches which lie under the earth. It is necessary to understand the organization of the rootlets,—in my opinion, very important organs to the proper growth of plants. If we make a longitudinal section of the rootlet, to the point where it is given off from the root, and continue the section through the branch of the root, (the most simple and easy of demonstrations is the carrot,) we shall see, that while the outer coat of the rootlet is given off from the external coat of the root, there is a vessel running from the extreme point, or *spongiole*, along the center of the rootlet, continuing its course entirely through the bark, until it meets the ascending vessels,

through which the sap arises into the plant. The root appears to act to the maturer plant, in some measure, and in a similar manner, as the seed-lobes, or cotyledons, to the young plant. The seed-lobes, you are aware, contain an immensity of vegetable matter of the nature of starch, which, being converted into dextrine by the peculiar chemical change, effected in the process of germination and vegetation, by the diastase contained in the germ, and serves for the nourishment of the young plant until its organs are so developed as to procure its food elsewhere.

I have made use of the term *diastase*. As that word is not yet in common use, it may be well for me briefly to explain it. *Diastase* is a peculiar nitrogenised compound, contained in the germ of seeds, which, upon the application of heat, moisture, and atmospheric air, commences a ferment, converting the starch of the seed into a gummy substance called dextrine,—the true sap of the plants. It is the chemical change which takes place in malting, converting the simple nutriment of the barley into that which, on being brewed, affords the nourishing, though intoxicating beverage of ale or porter; or, when distilled, affords ardent spirits. This power, called, in chemistry, *catalysis*, may be further illustrated by the leaven used in baking, which is known to every good housekeeper, as "a little leaven leaveneth the whole lump."

Now the roots contain an immensity of the proper juices of the plant; nay, the proper juice is here in its most concentrated or inspissated state; for, if we examine a plant, we shall find that while its proper juice is mild in the leaves, it is stronger in the twigs and branches—stronger still in the bark of the trunk,—but still more concentrated in the root. Now, it is by the

combined action of moisture, heat and oxygen, upon the germ, that the vitality of the plant is excited. Moisture is absorbed, and carbonic acid gas is generated, the *plumula* puts forth its tiny leaves, and the radicle elongates and penetrates the earth. That the oxygen of the atmosphere is the prime mover in this action, which, in this process, is called germination, is abundantly testified by the fact, that seeds will not germinate without its presence, and that the very act of germination is accompanied with the generation of carbonic acid gas. The moisture supplied takes up that portion of the starch which has undergone the chemical change; and a preparation of a seed in this state, will show that the duct or vessel into which the nourishment, so prepared, enters, leads directly into the plumula or evolving leaves of the young plant. Now, a process somewhat similar takes place with the root and rootlets of a plant. To excite vegetation, moisture, heat, and oxygen are required; and vegetation is accompanied with the same act of generating carbonic acid gas. You will bear in mind that the vessel, in the centre of the rootlet, does not only run the whole length of the rootlet, but penetrates transversely through the bark, and joins the inner or ascending sap vessels. It therefore appears that the following process goes on: The concentrated juice, contained in the root, is in the rootlet subjected to the influence and action of the oxygen of the atmospheric air, and water, contained in and permeating the soil. A portion of the moisture is imbibed through the coats of the vessels, and dilutes the juice contained in them; and, being forced through the internal coat, by *endosmose*, into the internal or ascending vessels, it meets and mixes with the water taken up by the spongioles, holding in solution the various alkaline and siliceous

compounds necessary for the inorganic structure of the plant. This mixture, constituting the true sap, ascends by the force of endosmose and capillary attraction, and is thus capable of forming the new leaves, the wood, the flowers, and the fruit of the plant.

Let me explain, to those unacquainted with the term, the meaning of *endosmose*. It has been long known that no gas or particular air can be confined by animal texture; and that if a bladder is filled with any gas, it cannot be kept pure for any length of time; that which is within escapes through the coats of the bladder, and that which is without will get in, and vice versa, according to fixed and known laws. Now it has been found that fluids are possessed of similar powers, and governed by similar laws, acting in this manner on membrane of either animal or vegetable structure, alike,—the lighter fluid forcing itself through the integument, and mixing with or passing that of greater density; and after water, a gummy solution ranks first in endosmotic power. Now, as the juice in the roots abounds in gum, it follows that water imbibed through the external coat of the rootlet, and diluting the proper juice into their mucilage, the solution is forced by endosmose into the inner vessel, and ascends by that force and capillary attraction. It is on this principle we account for the ascent of the sap, and on no other, in my opinion, can the theory of vegetation, the development of the plant, and production of its woody fibre, be explained.

Assuming, then, that all the carbon of the plant is derived from the atmosphere, and that a quantity of this constituent is required, not only for the due evolving of the leaves and wood, but for their subsequent nourishment, it follows that a certain portion of this necessary ingredient must

be contained in the ascending sap; and if so, it is also evident that it must be carried into the ascending sap vessels by means of the centre vessel, which I have already described, as running the whole course of the rootlet, and traversing the thickness of the bark of the root, until it joins the before mentioned ascending vessels. The external coat of the rootlet is, as I have already stated, given off from the external coat of the root, and, consequently, the proper juice of the plant in the root, and given into the rootlet, is, in the latter, exposed to the action of the atmospheric air and the water contained in the soil; and thus, having been modified and diluted, it enters the centre vessel in a fit state for the due nourishment of the plant.

In confirmation of these views, I may call to your recollection the phenomenon exhibited by a grafted tree. Here we see on the same stock a variety of fruit. Now, on what does this depend? The answer will be, on the scion, or bud, introduced. True, it is so; in that scion or bud is contained the germ of young leaves: these, by the nourishment supplied, are evolved, and then commences, according to the *character of the leaf*, the elaboration of the proper juice which is to produce that *particular variety* of fruit. The fact, also observed by florists, and mentioned by a celebrated culturist in Philadelphia, of the loss sustained by cutting off the young branches, containing the buds and flowers of camellias, causing the rootlets to die,—showing that certain rootlets depend upon certain branches or leaves, which, having been cut off, the rootlet dies, as being of no further use. This is an important and interesting truth. Again, let us look to the fact of the maple affording its sugar from the concentrated juice of the former year, and giving it out whenever the sap begins

to ascend, and before any leaf has yet appeared. At the same time, it is known that if the tree is bled too much, it destroys the luxuriance of the vegetation for that season. Again, let us watch the progress of the young fruit tree. Deriving the nourishment required, in the first place, from the immense accumulation of vegetable matter in the cotyledons, the root of the young plant thrusts itself into the earth, and the young leaves unfold themselves to the atmosphere. Year after year crops of leaves succeed each other,—each leaf performing the important function assigned to it, of assimilating a portion of the sap in the progress of its circulation into the proper juice of the plant, which, when done, it dies and falls to its mother earth. Season after season our plant gains strength; its leaves are thrown out stronger and larger, and, in due time, the tree is capable of yielding fruit. With the first appearance of the leaves of the following season, the plant is decked with flowers, succeeded by fruit. This is the progress of a tree, from its first germination to maturity. Here we see the great importance of the leaves, in maintaining the plant. If our plant is puny, its branches slender, and its leaves wanting in luxuriance, we cannot look for fruit; and in this case, what is our remedy? We apply the pruning knife; and thus, by concentrating the ascending sap, instead of being distributed over a large surface through many long branches, we give energy to the plant, and leaves and flowers burst forth in great luxuriance.*

* It is on this principle that Dr. KLOTSCHS attempts the cure of the potato disease,—“to pinch off about half an inch from the top of the plant, when it has reached a height of six or nine inches, and to repeat the same operation 10–11 weeks after the time of planting, on all the stems of the plant.” By this operation, the carbon of the plant is not again expended in the production of new stems and fruit, but is thrown into the tubers, producing potatoes of firmer texture, and more concentrated material.

You are, of course, aware that all plants are formed of organic and inorganic constituents. The organic are the woody fibre and the juices of the plant. The inorganic, the earthy and alkaline substances found there, viz., potash, soda, silica, &c. The organic constituents can all be resolved into the following elementary substances, namely: carbon, hydrogen, nitrogen, and oxygen. Now we have seen that the carbon and nitrogen have been derived from the atmosphere. The hydrogen and oxygen, the constituents of water, are, of course, derived from the rain which percolates through the earth. The inorganic are also taken from the earth. It is evident, then, that the inorganic constituents must be found there; and if they are not there naturally, they must be supplied. This is the true theory of manuring, viz., to enrich the earth so that it may be buoyant and loose; that atmospheric air may permeate, and the rain percolate through it, allowing the rootlets free access to every part, and to supply the inorganic constituents required. Hence we see the great advantage to be gained by the admixture of any buoyant substance, such as muck, bog or humus, stable litter, or other light manure; lime, ashes, and other com-

pounds containing ammoniacal, and other salts and silicates.

I shall not, however, consume your time with entering into this subject farther. I have attempted, in the observations I have made, to elucidate the great importance of the leaves and the rootlets of a plant, as the organs necessary for its proper development, and the maturing of its productions. To allow the leaves to perform their functions in a proper manner, light, sunshine, and atmospheric air, are required, and ought freely to be admitted; and to allow the rootlets to perform theirs, heat, moisture, and atmospheric air, are indispensable. Whatever tends to deprive the leaf of light, retards it assuming its proper colour; and without colour, the solar ray loses its effect, and the plant wants vigor. Strip a plant of its leaves, and prevent their further development, and it will die. So, in like manner, unless the rootlets enjoy freedom of extension, a sufficient supply of moisture, and atmospheric air, the plant will droop and wither. Deprive it of its rootlets, and it will die. These are points, no doubt, familiarly known to all; but they are, nevertheless, worthy of the very greatest attention.

JAMES PAUL.

Trenton, N. J., 1848.

HIGH CULTIVATION OF NATIVE GRAPES.

BY AN AMATEUR, NEW-YORK.

I THINK very few of the thousands who now cultivate the Isabella and Catawba grapes, in the middle states, are aware how much the size and quality of the fruit is improved by high culture.

The deep and rich borders, always prepared for vineries of foreign grapes, your readers are familiar with; and the magni-

ficient growth of wood, and enormous clusters of grapes, that are obtained by using such stimulants. I think equally satisfactory results may be obtained by making deeply prepared borders for the native grapes. Of course, I now refer to vines planted for table fruit; as it is well known that in planting vineyards for wine, the

quality of the juice is the only point to be considered ; for in that case, high manuring always injures the vinous quality of the fruit.

I have four Isabella vines, which have given me, for two years past, fruit nearly as large as those of the Black Hamburg, and of very fine flavor. Perhaps it may please some of your readers to know the treatment they have received.

They stand in a border, 12 feet wide by 30 feet long. I prepared this border by throwing out all the soil and subsoil to the depth of 3 feet. The bottom was then filled up with stones, mixed with half *lime rubbish*, (from the walls of an old house,) one foot in depth. Throwing away all the subsoil, I then mixed with the good soil 10 cart loads of stable manure, and 2 barrels of bone-dust, and a cart load of leached

ashes. With these all incorporated together, the border was made complete by filling up the remaining 2 feet upon the stones and lime rubbish in the bottom.

The vines were planted 6 feet apart, and trained to an upright trellis.

I was astonished at the gigantic shoots which they made the second and third years. The shoots were some of them 24 feet long, and as thick as my thumb. I pursue the simple spur mode of pruning, and obtain regular and heavy crops. Some of the bunches weighed a pound and a quarter last year ; and the berries were so large that many persons, who saw the fruit, would scarcely believe it was the same variety as the common Isabella grape. So much for the effects of high culture. Respectfully yours,

AN AMATEUR.

New-York, Dec. 10, 1848.

PRACTICAL HINTS IN TRANSPLANTING.

BY C. SMITH, NEWPORT, N. Y.

A. J. DOWNING, ESQ.—The suggestions I am about to make, relative to transplanting fruit and ornamental trees, are the results of some experience ; and should they prove of any appreciable worth to the patrons of the Horticulturist, I wish them looked upon as some return for my indebtedness for pleasure derived from the labors of the editor and correspondents of this journal.

Premising that the reader is aware that, for New-England and New-York, spring is decidedly the best time for transplanting, and that it is time and money saved to prepare the land, intended for the garden or orchard, by manuring and faithful cultivation,—we will next say, that the selection of the trees in the nursery, is of material importance ; that the tall, *slender* plants

should be discarded, and only the stout, healthy ones preferred. The latter will, in nearly all cases, prove more vigorous, handsome, productive and long lived than the former ; hence the importance of securing this advantage. *Instead of heading back the top, leave the limbs entire ; but remove every alternate bud on every limb, sparing the terminals.* This saves a year's growth, and is much better than mutilating the tree, which is always done at some expense to its vital energies and length of life.

Of 75 fruit trees set out last spring, and treated in this way, I lost not one. I use no water in transplanting fruit trees,—not having been able to discover its advantages ; nor do I press the earth over the

roots of the tree on placing it in the hole prepared for it, except to the width of the foot next the trunk, leaving the extremities of the roots, with the earth lying lightly upon them.

The pruning-knife, except for heading back an unthrifty tree, or pruning the peach, as recommended in the "Fruits and Fruit Trees of America," is, to my thinking, an unqualified nuisance in the orchard and garden.

At the season when the young trees begin to send out sprouts, or new limbs, watch for a shoot which is taking a wrong direction, and when found, *pinch* it off. Persevere in this course three or four years, and afterwards let the limbs take their own way, and they will not be likely "to get into a snarl." Removing the tender twigs does not leave a wound, nor check growth, nor diminish the vitality of the organized structure.

The past season I transplanted sixty forest trees, many of them twenty feet in height, and a majority of them were of those species which are extremely difficult to transplant with success. I did not lose a tree; and I attribute their uniform prosperity to my taking off, when planting, every alternate twig from every limb. This does not deform the symmetry, while it reduces the number of leaves to such an extent, that the diminished quantity of root can supply the organization with food sufficient to maintain life and growth. If it is the leaf that exhausts the newly removed tree, the suggestion I introduce will balance leaf and root without mutilating large limbs, which, as sure as effect follows cause, will injure the vital energies of the tree, and prevent its living out half its days.

C. SMITH.

Newport, N. Y., Nov. 20, 1843.

NOTES ON THE BELLE ET BONNE APPLE.

BY PROF. OLMSTED, NEW HAVEN, AND GEORGE OLMSTED, EAST HARTFORD, CT.

A. J. DOWNING, Esq.—*Dear Sir:* In the month of May last, being on a visit to my native place, on the east bank of Connecticut river, opposite the city of Hartford, I was much interested in viewing the fine fruit orchards of my kinsman, GEORGE OLMSTED, Esq., and in witnessing the happy results of his methods of cultivation. My attention was particularly arrested by his beautiful collection of apple trees, in various stages of growth, and, most of all, by one of peculiar magnificence, called the *Belle et Bonne*. The oldest and largest of these, in my friend's collection, was a tree about twenty-five years old, which, every other year, bears about thirty bushels of

apples. Several of the younger trees, of the same variety, are growing with remarkable symmetry of form, and promise to make splendid trees when they arrive at maturity.

But my admiration was particularly raised at the sight of a still nobler specimen of the same tree, to which Mr. OLMSTED conducted me, which was growing in a neighboring garden belonging to Mr. A. COWLES. This fine example of the *Belle et Bonne* is dome-shaped, its limbs trailing on the ground, and the whole figure one of great symmetry and beauty. We found its entire circumference, as we paced the ground around the pendant limbs, to be about one hundred and



Fig. 57.—The Belle et Bonne Apple Tree, at East Hartford, 40 years old. Circumference of the head, 120 feet. Burs 40 to 50 bushels.

twenty feet. The leaves are large, and of a rich green colour; and I could easily credit the statement of my friends, that, when loaded, as it was in the year 1847, with from forty to fifty bushels of apples, all large and fair, it presented a spectacle not a little exciting to the lovers of fine fruit trees. The fruit ripens late in the fall, and, at the time of my visit, the last of May, it was still perfectly sound, of an agreeable sub-acid taste, and entitled to rank high among the finest winter apples.

The *Belle et Bonne* is, I learn, not a French variety, as the name might imply. It is a native variety, so named, (*Belle et Bonne*,—being, literally, *beautiful and good*,) by the French, at the time the French troops were stationed here during the revolutionary war. The original tree, (the parent of those now growing here,) was cut down only two years ago. It stood upon the land of Mr. JASON ROBERTS; and Mr. R. says it was believed to be more than 100 years old when cut down.

My friend having obtained an excellent drawing of the tree belonging to Mr. COWLES, it was agreed between us, that we would (with your leave,) give to the cultivators of fruit abroad the opportunity of sharing with us the pleasure with which we viewed the East Hartford *Belle et Bonne*; a tree which combines, in a singular degree, the qualities of the finest fruit bearer, with the ornamental properties of a fine shade tree.

Mr. OLMSTED also showed me examples of his treatment of old apple trees, which, by successful grafting, he has not only re-animated with the vigor of youth, but rendered them prolific of finer varieties of fruit than were ever yielded by them before. I have also been favored with occasional specimens of his fall and winter apples, which, for beauty of form and deliciousness of fla-

vor, have never been surpassed in my experience. Respectfully yours,

DENISON OLMSTED.

Yale College, Sept. 3, 1848.

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We add to the foregoing the following additional notes, by Mr. GEORGE OLMSTED:

DEAR SIR—The old apple trees on my grounds, to which Professor OLMSTED alludes in the foregoing, were a few years ago worthless, until they were completely changed by my grafting them over.

These trees I commenced grafting six years ago last spring. *I began on the top, and grafted one-third of the tree each year.* It therefore required three years to complete the entire heads of the tree.

I like this method better than any I have ever tried for grafting large trees, as it gives the grafts a good opportunity to get well started. Cutting off and grafting the top first, gives the grafts there the best possible chance, while the necessary reduction of the top throws the sap into the remaining side branches, which fits them well for grafting the following year; and the third year, the lowest branches being made ready in the same way may be grafted successfully. By this mode, it will be seen that when the grafts are put in on the side branches they are not shaded by heavy shoots above them, and they have an unusual supply of nourishment to carry them forward. Those who have attempted to graft the whole head of a large tree at once, are best aware of the great difficulty in the common mode of getting the grafts to take on the *side limbs*.

One of these large trees, so treated, is probably more than 75 years old, and has now an entirely new and vigorous head, grafted with this excellent variety. When I began with it, the fruit was only fit for

cider, and it was questionable whether the tree should not be cut down. By grafting it in this manner I have added surprisingly to its value. Two years ago (the bearing year,) I obtained from it 10 bushels of apples, last year 8 bushels, and this year, (only six years from the time I began to graft it,) I gathered 23½ bushels of excellent fruit!

I consider this tree now worth \$100; the cost of grafting it was about \$5; and the latter was all repaid two years ago,—the first season the grafts bore fruit. Yours respectfully,

GEO. OLMSTED.

East Hartford, Ct., Oct. 25, 1843.

P. S. My mode of setting out young trees in our soil, (a light sandy loam,) is to dig the hole six feet square, and three and a half feet deep. I reject the subsoil of sand when filling in the holes, and place a layer of sods or rich turfs at the bottom and sides of the hole. I then fill up to the height on which the roots of the tree should be set with rich mould, (which I cart to the spot, if it cannot be found in the vicinity.) When the tree is planted, I leave the ground about the tree in a slight hollow; and as the main point here is to guard against the effects of drouth, I finish by *mulching*, i. e., placing a heap of litter round the tree for the first season. Repeated deep hoeings are a very good substitute.

With this foundation, and with proper after care, my trees grow with great vigor, and bear large crops of good fruit. G. O.

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We have heard much of the beauty of growth of the *Belle et Bonne* apple, which has a great reputation in Connecticut; and this portrait certainly justifies all that has been said. Mr. OLMSTED informs us that young trees take the same full and symmetrical habit, and that this variety is remarkable for its fine habit of growth beyond any other known to him.

The fruit of the *Belle et Bonne* we have examined, and find it a very large and showy yellow apple, belonging to the same class as the Fall Pippin, the Fall Harvey, and the Golden Ball. It has an excellent sub-acid flavor, not, perhaps, equal to the Fall Pippin, but fully equal to the two others. It appears to be so much more productive than either of these varieties, that if it retains this habit in other parts of the country, it will become one of the most popular market fruits. In Hartford, we learn it has scarcely a rival for size, beauty of appearance, and profit to the cultivator.

Mr. OLMSTED is a practical fruit grower of much skill, and we recommend his remarks on grafting large apple trees to the attention of our readers. His practice is sound, and is based on the true theory. ED.

WINTER TREATMENT OF KITCHEN GARDENS.

BY A SCOTCH GARDENER, BOSTON.

In the early part of winter we often have a good deal of open or mild weather; and it is a matter of some consequence to know how the gardener can be employed to the best advantage.

As I observe that, comparatively, few gardeners here appear to place sufficient

importance on the value of exposing the soil, as much as possible, to the winter's frost, I wish to be allowed to make a few remarks upon the subject.

Ridging up the surface of every unoccupied spot, in a kitchen garden, is one of the things most of all insisted upon in

Great Britain. Experience has demonstrated, hundreds of times, that it mellows the soil, destroys the eggs of insects, and drives out any acids or excrementitious matters that exist in old soils to the detriment of the succession of annual crops. Indeed, many old gardens that are quite unproductive, if left alone in this particular, are kept in capital condition by constantly attending to it.

The ridges ought to be thrown up a foot and a half high, in the direction of the slope of the ground, so that the water will run off, and not stand in the trenches. They may be as close together as they can be made, bearing in mind to keep the tops of the ridges 18 inches high. I consider it

a great advantage to turn up a little of the subsoil—say a couple of inches each season—at the time of ridging. This brings a little fresh loam to the surface; and after being acted upon by the atmosphere, it mixes very kindly with the top-soil, and helps much to keep up the fertility of the garden.

If you have fresh stable manure at hand, it is well to give the top-spit a good coat, and mix it through the soil when ridging up. It will be found to put the soil in good condition for spring crops of vegetables; and it is by far the best mode of applying coarse manure to the kitchen garden. Yours respectfully, A SCOTCH GARDENER.

Boston, Nov., 1848.

NOTES on the ARCHITECTURE AND GARDENING of the EASTERN STATES.

BY W. H. SCOTT, TOLEDO, OHIO.

I THINK, when I saw you in your lovely Highland home, last July, you partly elicited a promise to give, in a future number of the *Horticulturist*, some impressions of a rather hasty visit to New-England. I have read several interesting numbers of the *Horticulturist* since then, and have certainly derived more benefit from their perusal than if a part of the space had been occupied by any observations of mine. A western man, whatever may be his pride of home, and attachment to a country possessing so many natural advantages, can hardly avoid cherishing some slight covetous feelings, while contrasting it with one which age and wealth have subdued and beautified; but this is somewhat alleviated by the idea of a smoother and speedier road to arrive at such a stage of improvement.

Perhaps in no one aspect does New-

England (*old*, as she appears to us,) exhibit so great a superiority over the untamed west, as in her rural architecture. In passing through its more southern portions, the pleasantest ideas of the comforts of its houses, are awakened.

The general adaptation of these to the purposes for which they were designed, is one of the most material sources of pleasure. The observer will occasionally see ostentatious displays of bad taste, where *show* has been the grand object of a proprietor, influenced in a great degree, perhaps, by an ambitious but ignorant architect. Snug little thirty-by-forty *parthenons*, stubbornly intrude themselves upon the notice, as if insisting upon an attention which their owners imagine so much splendour of column should command.

Something of the same spirit pervades building humanity now, that DE TOCQUE-

VILLE noticed in his visit to this country. While passing, for the first time, the Narrows, in his approach to New-York, he was struck with the grandeur of the marble palaces seen in the distance; but whose pediments appeared, on nearer approach, to be supported by great wooden columns!

One may see, in passing by land from New-York to New-Haven, many burlesques in the architectural way. I have in my eye an example in a building, which must have cost somewhere between fifty and one hundred thousand dollars; certainly not less than the former sum. It was evidently intended to be an imitation of an Oriental or Persian palace, in its architecture, as you will see by a glance at its domes and minarets. But with all the *assumption* of the front to be stone, the sides could show nothing better than flimsy clap-board covering.

The rural Gothic and bracketed structures, which seem now to be greater favorites than any other, for the better class of residences at the east, do not exhibit so many deformities as one might very naturally suppose would result from the infancy of these styles in this country. With some who have crude and half formed ideas of the Gothic, the beau ideal seems to have been attained by an elegant *superfluity* of gables; so that the chambers might all be found "up among the peaks." Another, you will observe, seems not so anxious about the gables as about his one idea of spacious verge boards, or fanciful *terra cotta* chimney stacks. Occasionally may be seen a house which might, if seen alone, be considered the perfection of beauty; but, surrounded by such a nursery of young shade trees, that the good effect produced by the view of the house is nearly lost.

These are some of the defects apparent to an observer; yet how much is there to admire. *White*, for the outside of houses, is plainly not the only orthodox colour. Fancy is very properly gratified by such a variety of colouring, that each individual taste may find its own. From a light fawn to a dark brown, shades can be found, but not described, which seem so much more appropriate than white for many situations, that the occasional over colouring may be very easily pardoned. You need not understand me as not still having some love for white. There is something so attractive to me in a well painted white dwelling, with cool green shutters, and tastefully embellished with vines and shrubbery, that I shall still pertinaciously insist upon its claim, to hold its place among those of darker hue.

There are many situations where white houses will not present that glaring appearance, which Uvedale Price speaks of, as so like the eternal grin of a fool.

[White is not only permissible but agreeable, when the house is embosomed in foliage, so as to subdue the glare. Ed.]

Rural architecture seems to have been studied to good advantage by the farmer and mechanic. Innumerable are the little gems of cottages, surrounded by pretty and attractive, but not expensive, outside embellishments. A sum less than one thousand dollars has erected quite a large proportion of the attractive houses of the New-England mechanics. Internal convenience has been studied to some advantage, and outside show—which, I may say, it is no trait of a New-Englander to despise—has not been allowed to overbalance a more palpable good.

While on this subject, let me say something of architectural works. I have spent some time in looking over the numbers of

Ranlett's "Architect." There are many buildings delineated there, with an appearance so attractive, and at an expense so moderate, that they would be considered just the thing, were it not that the outside once seen, there is a very natural inclination awakened to peer into the excellencies of what is within. When it comes to this, we are quite as naturally disappointed to find rooms inconveniently contracted,—in many of the houses, so small that one with half the means allowed in the specification would hardly be willing to live in them. For those, then, for whom it is intended, the work is *not* just what is wanted. The greater portion of those who build, in this country, lay out from nine hundred to two thousand dollars in the construction of their dwellings.

For a more expensive class you have provided. But if the question can be satisfactorily answered, as to the equal ability of that less ambitious class to buy and read a book better adapted to their wants, who is to provide it?*

The description of the horticultural festival at Boston, in the November number, was delightful, leaving a most refreshing impression upon the mind. Such a congregation, of the best talent and truest spirits of the country, as met in old Faneuil Hall, is seldom witnessed; and never, I may safely say, with more disinterested purpose, or closer community of feeling. Those Bostonians are grand punsters. The many chaste and sparkling sentiments, which the occasion called out, were to the point; but additional interest was awakened by the delicate play upon words which characterised many of them, and especially some given by the two QUINCYS, who are somewhat celebrated that way.

I see that the Clinton grape is recommended by you, and some others, as a good grape for the northern portion of the country; but it is not among your varieties in the "Fruits and Fruit Trees." In some respects, it is more worthy of cultivation than the Isabella. It is a strong grower, early—ripening here nearly two weeks before that variety—a good bearer, and much more hardy. Last year both made a luxuriant growth in my vineyard. On the fourteenth of September, 1847, there was an unusually severe frost, and my Isabella vines on two rows of trellis, were nearly all killed to the ground, while an equal number of Clintons escaped without injury.

I had supposed, until this fall, that grafting the pear upon the white thorn necessarily rendered the tree somewhat dwarfish in its character. An experiment has shown me that such is not always the result.

Two years ago last spring I grafted twenty-five or thirty pear scions into white thorn roots, which I had taken up for the purpose. The root was put in the ground, so that the split should be about on a level with the surface of the earth. As the grafts grew, a little extra earth was thrown around them to prevent the wind from breaking them off. Last October I had occasion to take up some of them for the orchard. When they were lifted, I was surprised to find that all the young trees had parted company with the old roots, which had given them their first sustenance, leaving the top of the stump as smooth as when first sawed off, and the cleft, from which all traces of the pear tree had vanished, with the same appearance as when the grafting was done. The trees had no other than fine thrifty pear roots.

* Our new work on *Country Houses*, now in preparation, will include designs for cottages of very moderate cost. E.

The thorn was found with the same short mutilated roots as when taken from its native ground. Scarcely a rootlet visible, and all dead. Yet this stub was

sufficient to give the graft a most luxuriant growth until it had thrown out roots of its own.

W. H. SCOTT.

Toledo, O., Dec. 3, 1848.

PEAR TREE BLIGHT,

BY DR. HERMAN WENDELL, ALBANY.

DEAR SIR—In your comments on my letter, treating of the diseases to which pear trees are more or less subject throughout our whole country, printed in the Horticulturist of last February, you say—"That a mild winter, with sudden and great fluctuations of temperature, in a climate like that of Albany, is perhaps more fatal to a tender barked tree than one of uniformly low temperature." This position I shall not attempt to controvert; for it coincides with my own experience. You also go on to say—"Take the present season, for example, &c. * * * At Albany, on the 12th and 13th of January, the mercury sunk as low as 22° below the zero of Fahrenheit. This was followed, perhaps, by bright weather; and in trees fully exposed to the great alternations of frost and sun, we think *frozen sap-blight* would be very apt to occur." The extreme cold to which you allude, as having occurred in January, and which you say was *perhaps* followed by mild and bright weather, was so followed; and this was not the only occurrence of the kind during the winter. For, several times, the vicissitudes were equally great; so frequently, in fact, that cherry, peach, plum and nectarine trees bore little or no fruit during the past season in this whole vicinity,—the fruit buds having been destroyed by these sudden changes of temperature. Yet, notwithstanding all this, my pear trees have borne well, and I have not

lost one large tree from my extensive collection, by what you have called frozen sap-blight—that which shows itself *first* on the trunk or the body of the branches of the tree; whereas, last season, the preceding winter to which had not been marked by such sudden alternations, but which, on the contrary, was unusually mild and equable, I lost more than twenty. Neither have I lost more than two small trees from that disease which makes its first appearance on the extremity of the stem, (not the scolytus pyri,*) or but a very few limbs from the older trees; whereas, the preceding summer, I lost a large number of small trees, and nearly half the branches from some of my large ones from such cause.

After the publication of your February number, I determined to wait until the termination of the season, which has just passed, before expressing myself further on the subject of pear tree diseases; because I thought that the course things took, subsequent to such a winter as the last, would, in all probability, indicate to us somewhat whether the diseases in question were caused by frozen-sap, scalded-sap, or some other influence.

Now, I have related facts as they are. Others, as well as myself, can draw their

* I may as well remark, en passant, that the moment I discovered the slightest indications of disease in the extremities of a limb, I amputated it, with a clean knife, at its junction with the main stem, and covered the wound with the shellac solution. This course invariably checked its further progress.

own inferences. I shall content myself by merely relating the course pursued with my trees in the autumn of 1847; and if others choose to follow my plan, perhaps like experience may be theirs. Before I proceed, however, I wish to remark, that I do not intend to assert that the treatment pursued by me kept disease from my trees. Several seasons, of like experience with my remedy, would be necessary to induce me to give a positive opinion as to any course being specific for such destructive maladies. I only wish to relate things as they have occurred this year, so that others may be induced to experiment as well as myself.

I have, during several years past, kept constantly ready for use a compost of ashes, lime, and iron scoria, from the smith's forge, which I have invariably applied round and about the roots of pear trees, when planting them out, and also on the surface around the larger trees every second year. Last autumn, when taking up such trees as had been killed during the season, I dis-

covered that the iron used by me was entirely unaffected by exposure to atmospheric influences, or by the moisture in the earth. This indicated to me that *such* iron was, of course, useless. I therefore determined to pursue a different plan; and procured from a steam engine manufactory, turnings of *pure* iron, which I mixed, as before, with ashes and lime, and applied a given quantity to every pear tree on my place. I would have preferred crushed bones in lieu of the lime, but could not procure them in Albany.

I again repeat, that I do not wish to be understood as giving it as my opinion that the iron prevented disease showing itself among my trees. Others are as capable of judging, with the facts before them, as I am. I will only add that, during the past season, diseases have been very virulent among the pear trees in the vicinity of this city; many growers having lost nearly all their collection. Yours very truly,

HERMAN WENDELL.

RANDOM NOTES ON GRAFTING, ETC.

BY A. FAHNESTOCK, LANCASTER, OHIO.

HAVING some apple grafts, of the *Rawle's Jannet*, left over last spring from my root grafting, it occurred to me to ascertain how long they could be kept available for successful working. Accordingly I put them into damp sawdust, permitting the sawdust to dry as the season advanced, so that finally they were protected from the air only,—the sawdust being then perfectly dry. With these grafts I worked ten stocks in the first week of May; they all took, and made a fine growth. In the first week of June, and, also, first week of July, I worked a similar number; not one failed.

The last of July, I worked the balance, (ten.) Some were tongue or cleft grafted, some spliced, and some, I might say, "bud-grafted;" that is, I cut off the stock, made an incision downwards in the bark, as if budding, opened the bark and inserted the graft,—it being previously prepared, as if for splice grafting. These last have done remarkably well; having all made from one foot to one and a half foot growth. In the last instance, the grafts were perfectly dry in appearance, and quite shrivelled. I forwarded this fall to my friends, W. R. SMITH, of Macedon, N. Y., and JAMES R.

MATTHEWS, of Coshocton, O., each, a tree of this last grafting. I am induced to believe, that had I kept part of the grafts they would have succeeded, worked in August.

I received from MESSRS. ELLIOTT & Co., in the spring of 1847, I believe, a tree of Van Mons' Leon Le Clerc pear, which never burst a bud until September following. In the month of August, I cut several grafts from this tree, and worked them on apple stocks, in order to save the variety; they grew remarkably well.

Previous to last spring, I had been very unsuccessful in grafting the cherry,—having practiced splice and tongue, or cleft and saddle grafting. In saddle grafting, I pursued the method as detailed by you in your "Fruit Trees," but found it tedious and slow to split the graft, and then pare it out with a small blade, besides being very difficult to have a regular smooth surface. I discovered, upon examining my budded cherry stocks last spring, that out of some six or seven hundred, one hundred and fifty would not grow; and having cut grafts at the proper period, I determined to graft all the doubtful ones. In the winter season, when nights are long, and leisure time always to be had, I take what is called, with us, "post-office" paper,—being very thin and tough, (I enclose a sample,) and cut the sheets lengthwise, in strips three-fourths of an inch wide, then dip them into melted grafting wax, drawing them between two sticks, previously prepared,—having a slight shaving taken from each, widening the opening towards the end or point; the opposite ends are tied together. You thus easily introduce each slip and draw it through, depriving it of all unnecessary wax; and, as thus prepared, I put each strip lengthwise upon top of the other, pressing the ends down, so as to make them adhere, until I have upon one heap a

"stick" or bunch of grafting paper, numbering each bunch from 150 to 200. They will remain thus together, until taken off for use.

My method of preparing the graft is as follows: Take the graft in your left hand, and, with a sharp blade, (one that is broad and thin is best; a shoemaker's knife, ground and properly prepared, does finely;) make an incision downwards from three-fourths to one inch long, commencing at the outer edge or bark, drawing your blade gently from heel to point, so that you finish your cut in the centre of the graft. Reverse the knife, or graft, and make a similar cut opposite the first, meeting it at its extremity. You thus take out a wedge, leaving a regular, smooth and even surface in the graft. Top your stock in wedge form to fit the graft, which can be done so neatly as scarcely to be perceived. (I would remark, that I always endeavor to have the stock, when cut off, about the same size as the graft.) Then take a strip of the waxed paper, and wrap the union several times to keep out the air and wet, drawing it tight, and tying it slightly with some bass. A slip of this paper always binds four grafts with me. You, of course, will loosen and take off both tying and paper at the proper period of growth. This fit is so neat, and the bulk of the shoot, where grafted, so small, that few will notice it. Those who visited my nursery during the season were forcibly struck with the entire success attending my spring grafting. I lost so few, as scarcely to be worth naming. From seven scions, kindly sent me, by mail, by Dr. RUMSEY, (of Fishkill Landing, N. Y.,) cut from his late Morello, I raised eight pretty trees. One scion being longer than necessary, I cut off about an inch of wood with but one bud only; it made a neat tree. And with two grafts of *Bigarreau gros*

Cœuret, received from you, I was equally successful.

Your description of the "Gen. Hand" plum, as set forth in a late number of the *Horticulturist*, agrees precisely with that fruit, as grown here, from the bearing tree, of which I forwarded you grafts last season; from the fruiting of this tree, for 8 years past, and general observation, (although the location is a bad one,) I am induced to call it one of the most valuable of plums, on account of its having never failed to bear a full crop, and matures its fruit perfectly. I admit that it is not so finely flavored, nor quite so large, as the Washington.

I received some pears in Nov., 1846, (from New-York,) on quince. These quince stocks never had the top pared down to the

bud, but had, say two inches of wood above; consequently, the growth of the pear on the side of the stock, formed a different grain or wood; and when they arrived here, several were broken off at the union. To save the varieties, I took two pieces of board, nailed them together at right angles, (like a small pig trough,) put the grafts in the angle, and nailed two cleats over them, dug a hole in the ground, laid a board in the bottom, placed the trough thereon inverted, closing each end with a small piece of board also, and then covered the whole with earth, raising it sufficiently to turn the water from it. In the spring I found these grafts in the best possible condition for working. Yours respectfully,

A. FAHNESTOCK.

Lancaster, Ohio, Nov. 27, 1848.

DESCRIPTION OF TWO NEW APPLES.

BY DR. W. D. BRINCKLE, PHILADELPHIA.

THE two following varieties of apples, from Pennsylvania, have been exhibited before the horticultural societies in that state, and have elicited high commendations. As we find, by the specimens sent us, that they are deserving of their reputation, we have much pleasure in presenting the following descriptions, by Dr. BRINCKLE, with outlines, which we have prepared from the specimens sent us. ED.

Philadelphia, Nov. 21, 1848.

DEAR SIR—I send you, by Adams & Co.'s express, a box containing specimens of the *Republican Pippin*, which I received yesterday from Dr. KITTOE, of Lycoming county, and the *Smoke-House* Apple, from Dr. MURPHY, of Parksburch, Penn.

I enclose descriptions of these two varieties, drawn up from the Westchester spe-

cimens, sent me in September. Make any use of them you think proper. The former variety may be too ripe when you receive it, for you to judge of its excellence. If eaten the last of September or beginning of October, it is juicy, with the walnut flavor very perceptible. The *Smoke-House* is in fine eating order, though the specimens are not as large as I have seen.

I. REPUBLICAN PIPPIN.—This delicious autumn apple was first brought to my notice, during the present season, by J. BALDWIN, Esq., president of the Westchester Horticultural Society, who very kindly sent me specimens of the fruit in September.

In regard to its origin and history, I received, a few days ago, from Dr. KITTOE, a highly intelligent physician, of Muncy, Ly-

coming county, the following interesting and satisfactory information:

"The Republican Pippin originated here. Geo. Webb, who moved to this place in 1796, found the original tree in the woods, and named it the Republican Pippin. As he kept a nursery, he propagated the variety extensively; and it is now well known in this region of the state, where it is highly esteemed. Some scions were sent to England, in 1827, to J. H. LEWIS, Esq., of East Farleigh, in Kent, and he now has trees of it in bearing.

J. W. ALDER, Esq., of this place, took some of the grafts to a friend of his at Burlington, N. J., some 20 years ago. The original tree is still standing, in good health, and had a large crop of fruit on it this year. The apples have been preserved till April; and Mr. BLACK, of Tioga county, told me that, with him, it proved as good a winter apple as he desired. He lives, however, in a very cold place (Blockhouse,) on the Alleghany mountain. The usual time of ripening is from the middle of September to the middle of October. It is fit for cooking the last of July. For drying it cannot be surpassed, cooking to a fine pulp in a very short time. In the green state it cooks remarkably well, and has a delicious flavor. The tree grows vigorously on any soil, but does not bear well on limestone land. It has a crop every year."

From the specimens sent to me, the following pomological description has been drawn up:

Fruit large, from two and three-fourths

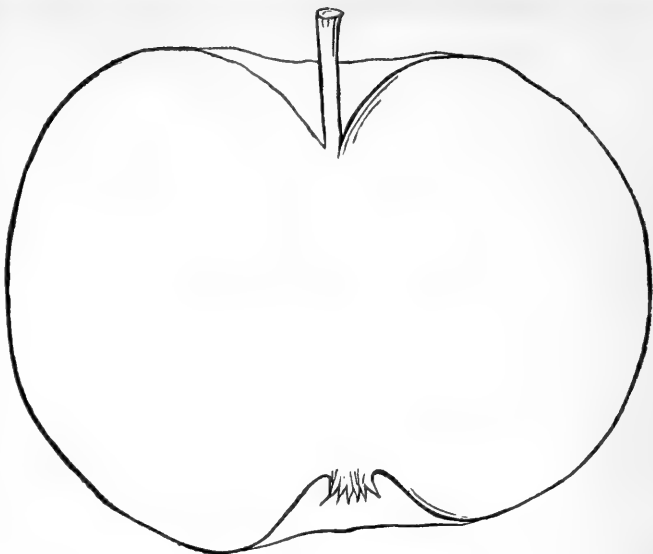


Fig. 33.—Republican Pippin.

to three inches long, by three and three-fourths to four inches in width; form roundish flattened; skin striped with red, on a mottled reddish ground, and, where not exposed to the sun, of a greenish yellow, [dotted with a few large gray dots;] stem about an inch long, and very slender for so large a fruit, inserted in a narrow, rather deep cavity, which is sometimes a little russetted;* calyx with small or narrow segments, closed, and set in a moderately deep basin; core small; seed brown, large, broad, plump; flesh yellowish white, tender; flavor pleasant and peculiar, [slightly sub-acid,] resembling somewhat that of walnuts; quality No. 1. Ripe in Sept. and Oct.

II. SMOKE-HOUSE.—This excellent apple originated in the neighborhood of Lampeter township, Lancaster county, Pennsylvania, on the farm of WM. GIBBONS. It grew near his smoke-house; hence its name. It was introduced into notice about 12 years ago, by Mr. ASHBURIDGE.

* The russet patch diverging in rays. Ed.

This variety is very productive, bearing every year, but more profusely every alternate year. The tree is a free grower, and comes early into bearing. Branches grow somewhat horizontally.

The above information, in regard to this apple, was communicated to me by Mr. BALDWIN, president of the Westchester Hort. Society. From specimens of the fruit he sent to me, the following description is taken:

Fruit above medium size; form flat; skin striped, and mottled with red, on a greenish yellow ground; stem rather short and slender, and inserted in a narrow, and not very deep cavity, [sometimes partly filled up;] calyx of medium size, closed, and set in a shallow flattened basin; core medium; seed

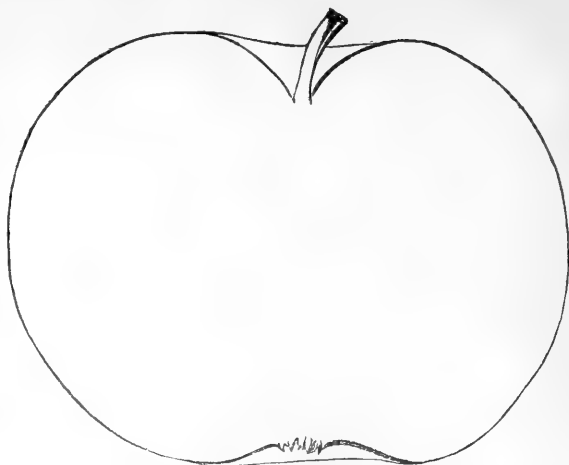


Fig. 39.—*Smoke-House Apple.*

brown, long; flesh yellowish white, crisp and juicy; flavor agreeable, with a delicate aroma. Ripe in October.

Very sincerely yours,

W. D. B.

Philadelphia, December, 1848.

DESIGN FOR A SMALL VILLA.

THE FRONTISPIECE of the present number, shows the elevation and plan of a dwelling, designed by A. J. DAVIS, Esq., of New-York, and erected at Rahway, N. J., for L. B. BROWN, Esq.

It is an excellent example of economical arrangement; and we scarcely remember an instance where so good an effect, joined to so much comfort and convenience, has been produced at so moderate a cost.

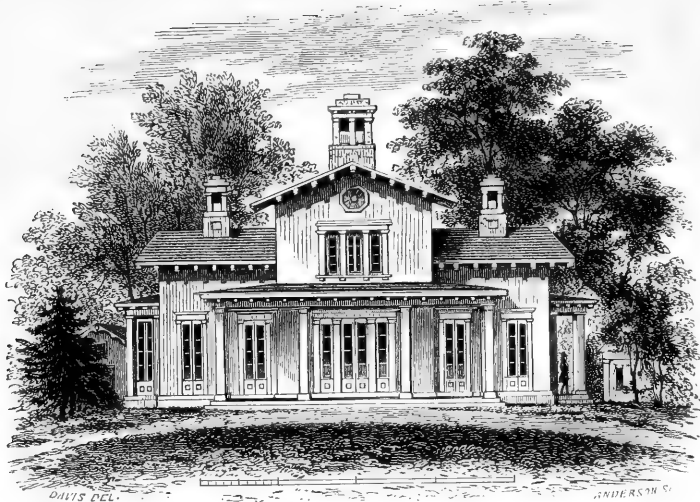
The plan of the principal floor shows, besides the entry, a parlor, a saloon, a dining-room, a kitchen, and a pantry. Not an inch of space is lost; and the management of the stairs and passages in the second story, is so complete that six good bed-rooms are afforded.

The exterior, without making pretensions

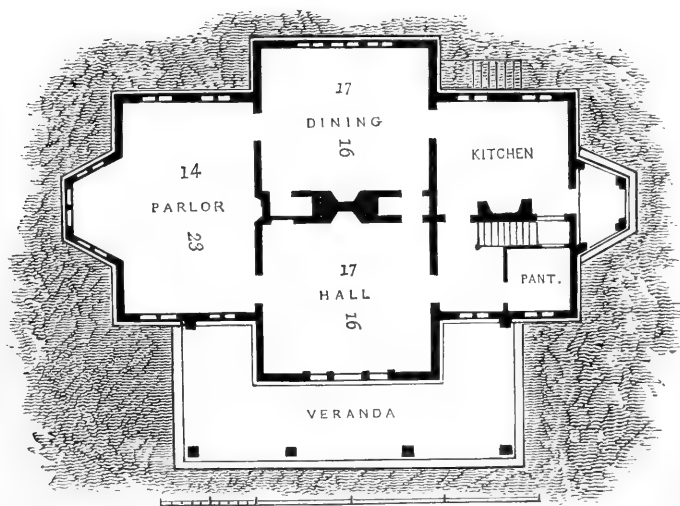
to ornamental effect, is well composed; the proportions are good, the style is well expressed, and the whole is altogether satisfactory to the eye and the judgment.

The veranda, which extends along the front of the building, gives an expression of great comfort to every house, in a climate where shelter and repose are so necessary, in certain hours of the day, as in the middle states, and where a veranda is therefore as indispensable as almost any apartment in the dwelling.

We think there are few examples existing in this country of a cottage villa containing so much accommodation, and in so unexceptionable a taste, for the moderate sum of \$2,300,—the cost of this design, as completed at Rahway.



DESIGN FOR A SMALL VILLA.



FIRST FLOOR.

[Hort : January, 1849.]

A CHAPTER ON PEARS.

BY DR. WM. W. VALK, FLUSHING, L. I.

A COMPARISON of *opinions*, merely, may not be without its use, particularly when such comparison is made between persons resident in different countries and climates. The cultivation of the *pear*, for instance, is necessarily modified by the exigencies of the *climate* in which it is grown; and this influence not only may, but *does*, affect the quality of the fruit so much, as to render the same pear unexceptionably fine in one locality, and good for nothing in another. Our own experience has proved this; and we doubt not the experience of all candid men will be to the same effect. So, too, the quality of the *soil* exercises a controlling effect, both upon the health and vigor of the tree, and the value of its fruit. In the one case, it is perfectly satisfactory to the cultivator, when that soil is congenial to the habit of the tree; in the other, he has nothing to look for but disappointment. Singularly enough, and most unaccountable is it, that notwithstanding the acknowledged influence, both of climate and soil, in promoting, retarding, or absolutely preventing the growth and prolificacy of fruit trees, there are thousands yearly purchased and planted, by a great many persons, without a moment's consideration of these well established facts. North, south, east, and west, in every kind of soil, known and unknown, pear trees are expected to flourish and be productive; and, if in each particular locality certain varieties *do not* give satisfaction, there is no thought bestowed upon the *real* causes of the misfortune; but upon the varieties, "*per se*," is lavished all the blame. *They* are at once pronounced bad upon false evidence.

Some time in June last, I addressed a

letter to a friend in Brussels, who cultivates a great many fruit trees, (mostly *pears*,) and requested him, if convenient, to give me a list of those he knew to be *the best in that climate*. In his reply, received Oct. 21st, allusion is made to the influences I have mentioned above; and I have his experience *where he is*, accompanied by a doubt as to how far it will prove correct in the United States. "But, (says he,) in your immense extent of country, embracing, as it does, every variety of soil and climate, there need be no difficulty in growing all good pears to perfection. Your amateurs have certainly to make themselves familiar with certain facts relating to vegetable physiology, and then apply them to the practice of selecting and growing every really valuable pear, if they desire to be successful. Some grow best on the natural stock, others on the quince, and some are worthless on either. Some do best in rich soil, some not, and *all* more or less require it to be moist or dry to a greater or less extent. The variety and the stock, best adapted for it, will go far to determine all these points; let your pomologists study them by reading and experiment. They will not regret the time spent, I assure you."

"The pears known to be of the *first quality* here, (Belgium,) by my own trials, and those of other experienced cultivators, are as follows, viz:

Ananas, Angleterre de Noisette, Beau present d'Artois, Belle d'Aout, Belle de Noel, Belle epine Dumas, Belle excellente, Belle Henriette, Belle Julie, Bellissime d'ete, Bergamotte crassane d'automne, Berg. crassane d'ete, Berg. crassane d'hiver, Berg. d'Esperen, Berg. de Hollande, Berg. de Paques, Berg. Libotton, Berg. Sylvange, Beurre Antoinette, B. Beauchamps, B. Beaumont, B. Benoist, B. Benner, B. Heymont, B. blanc, B. blanc des Capucins, B. Bose, B.

Bretormean, B. bronze, B. Curtet, B. d'Amanlis, B. d'Angleterre, B. d'Angleterre d'hiver, B. d'Aremberg, B. Elberg, B. d'Hardenpont, B. d'hiver, B. Defais, B. de Louvain, B. de Montgeron, B. de St. Ghislain, B. des Charneuses, B. Diel, B. douce savern, B. Drouineau, B. Dumortier, B. Duval, B. Giffart, B. Goubalt, B. gris, B. gris d'hiver, B. gris d'hiver nouveau, B. Kennes, B. Lefevre, B. Lombard, B. lucratif, B. Moiret, B. Piquery, B. Quetelet, B. Rance, B. romain, B. royal, B. St. Nicholas, B. Spence, B. Sterckmans, B. superfin, B. Tougard, B. vert tardif, Bezi d'Echassery, Bezi d'Esperen, Bezi de Caissoy, Bezi de Chaumontel, Bezi de Chaumontel anglais, Bezi Chaumontel panache, Bezi de la Motte, *in warm and light soil*, Bezi de Montigny, *warm and light soil*, Bezi de printemps, Bezi de St. Waast, Bezi des veterans, Bezi Goubalt, Blanquet le petit, Bois Napoleon, Bon chretien d'ete, Bon chretien d'hiver, Bon chretien Napoleon, Bon chretien William, Bonne des haies, Bon parent, Bouvier Bourgmestre, Bouvier d'automne, Broom Park, Caillot rosat, Calebasse, Calebasse d'ete, Camerling, Capsheaf, Capucine Van Mons, Catillac, (for cooking,) Catinka, Charles Durieux, Charles Frederick, Charles Smet, Charles Van Hooghten, Charles Van Mons, (these 5 raised by V. Mons,) Citron des carmes, Clement, Colmar d'Aremberg, Colmar d'ete, Colmar d'hiver, Colmar du Lot, Colmar Josse Smet, Colmar Nelis, Coloree d'aout, Compte de Flandre, Compte de Lanny, Consierier de la Cour, Cuisse Madame, Cumberland, Delices d'Hardenpont, Delices d'Hardenpont d'Angers, Delices de Jodoigne, Delices de Lovenjoul, De Spoelberg, Dingler, Doctem Capron, Double Phillipe, Doyen Dielens, Doyenne Boussoch, Doyenne d'Alencon, Doyenne d'Automne, Doyenne d'ete, Doyenne gris, Doyenne gris nouveau, Doyenne Defais, Doyenne Goubalt, Doyenne musque, Doyenne panache, Doyenne Sieulle, Duchesse d'Angouleme, Duchesse d'Angouleme panache, Duc de Brabant, Duc de Nemours, Duchesse de Mars, Eliza d'Heyst, Emerald, Emilie Bivort, Enfant prodigue, Epine d'ete, Epine d'hiver, Epine Dumas, Epine rose, Esperinne, Excellentissime, Ferdinand de Meester, Fondante de Lille, Fond de Malines, Fond de Septembre, Forel, Forme de Bergamotte, Forme de Bergamotte crassane, Forme de Cartet, Forme d'Urbaniste, Fortunee, Fourcrocy, Fred de Wurtemberg, General Dutilleul, Grande Bretagne, Grand Soliel, Graslins, Gros Muscat, Gros sucre, Grosse Marie, Gustave Bourgogne, Hacon's incomparable, (very delicate on the quince,) Heliete Dundas, Henkel d'hiver, Henri Capron, Henri Nicaise, Henri Quatre, Henri Van Mons, Henriette Bouvier, Hessel, Jalousie de Fontenay-Vendee, Jaminette, Jean Baptiste Van Mons, Jolivet, (*ripe end of June*), Josephine de Malines, Jutte peer, Leon Le Clerc, (V. M.) Lewis, Louis Gregoire, Louise Bonne d'Avranches, (*light and warm soil*), Louise d'Orleans, Louise de Prusse, Madame Durieux, Maria Louise Delcourt, Marie Louise

Nouvelle, Marie Louise Van Mons, (*light soil, warm and rich*), Marquise d'hiver, Martin Sec, (*cooked*), Mesdelices, Mignonne d'hiver, Milot de Nancy, Muscat Robert, Navez, Ne plus Meuris, Neuve Maison, Nouveau Poiteau, Nouveau Simon Bouvier, Oken d'hiver, Orpheline d'Enghein, (is this a syn. of Beurre d'Aremberg? W. V.) Passe colmar, Passe colmar dore, Passe colmar masque d'automne, Passe colmar nouveau, Paul Thielsens, Petit beurre, Poire Arlequin musque, Poire Davy, Poire de France, Poire de Naples, Poire de Prince, Poire de Thompson, Poire des chasseurs, Poire des deux saurs, Poire des S. S. Peres, (*cooking only*), Poire Delavault, Poire Eyewood, Poire His, Poire Jacobs, Poire Jalve, Poire Louis, Poire Roitelet, Poire Stas, Pucelle condesienne, Reine des poires, Regine, Rondelet, Rousselet Band, Rousselet de Rheims, Rousselet de Stuttgart, Rousselet royal, Royale d'hiver, St. Germain, St. Germain d'hiver panache, St. Germain gris allonge, St. Michael Archange, Seigneur, Seigneur d'Esperen, Serurier d'automne, Sentin, Simon Bouvier, Soldat labourer, Souvenir de Simon Bouvier, Supreme de Quimper, Suzette de Bavay, Theodore Van Mons, Triomphe de Jodoigne, Triomphe de Louvain, Van Assche, Vert longue, Van Mons, (L. le C.) Vesowziere and Virgalouse.

"Here you have 264 varieties, which we esteem as first rate fruit here (in Belgium,) [*! Ed.*] and the number might have been increased by the addition of many more, thought by some to be quite equal to any I have enumerated. Among these, not a few are greatly influenced by culture, either on the quince or not. Indeed, some will not give satisfaction *unless* on quince roots, and some do *not* thrive on those roots at all. Many only flourish as espaliers; others, again, only as standards, and not a few may, in your country, prove unsatisfactory any way. The *Belle Henriette*, for instance, *if on the quince*, (and this is generally the case with other varieties on those roots,) must be *in a cool and moist soil*. If on *natural stocks*, the soil is to be *warm and rather dry*. The *Bergamotte Crassane* d'Automne wants a south aspect, if your soil is cold and stiff,—an east one, if warm and light. The *Beurré Diel* is good in all soils proper for the pear; and we shelter it from the southwest winds. The *Beurré Rance*

is only fine on the pear stock. Williams' Bon Chretien the same. The *Calabasse d'Hiver* good on either quince or pear."

I have derived much pleasure and profit from the reading of my correspondent's letter, although his long list of the *best* pears rather confounds my calculations previously made, and regarded as satisfactory to myself. Of a number of the pears named, I have no knowledge whatever; yet, they may *all* be of as fine quality as he thinks them, and worthy a trial with us. The amateur who is desirous of cultivating a select collection of this delicious fruit, is advised to take particular notice of every fine variety existing in his neighborhood. He will observe whether they are on the quince or natural stock, and their degree of productiveness in different aspects, and different soils. It is by such observations, in connection with a few general principles I shall mention, that he will be able to avoid much of the deception to which he is constantly exposed, and save much valuable time.

In most cases, a preference is to be given to trees *on quince roots*, because of their fertility, and the quality of their fruit. Yet, a difficulty unfortunately presents itself here, and it is not easily explained. The quince tree itself, in all soils, does well enough; but when grafted with many varieties of the pear, the latter does not do at all. No success whatever attends our trials. The union is, in spite of us, defective. This *may* be attributed to the routine and bad method of planting so generally adopted heretofore.

Some cultivators are in the habit of planting deeply, burying the graft several

inches *beneath* the surface of the ground. Others, again, do just the reverse; the graft is as many inches *above* the ground. Both are wrong; for the graft should be *just even* with the surface. That is the true position, the only one that will answer in every instance of pear on quince, where the union is expected to be complete and productive. Besides, it is to be remembered that a cool and moist soil is required for *quince* roots, a rather warm, light and dry one for *pear*. By careless or improper grafting, too, much labor is thrown away. If the graft is too long, it becomes exhausting; if too short, no bearing wood is formed, and the too numerous shoots subsequently developed are mutually injurious, and bear no fruit.

Upon the natural, or pear stock, a deep and moderately rich soil is required. The tree is then more vigorous, but does not so soon produce its fruit; and its life is much more prolonged than if it were upon the quince. It is always best to graft the more delicate varieties upon the pear stock, as the growth will most likely be stronger, and better adapted to resist the force of strong winds.

I perceive that some of the names given by my correspondent are synonyms, and that quite a collection of fine varieties, known to our own cultivators, are not in his list. The best American fruits are never hastily introduced to European gardens and orchards; they do things better than ourselves in that particular, and some others, which I may attend to in another communication.

WM. W. VALK, M. D.

Flushing, L. I., Dec. 4, 1848.

REVIEW.

A PRACTICAL TREATISE ON THE CULTURE AND TREATMENT OF THE GRAPE VINE. By J. FISK ALLEN. Second edition, enlarged. Boston—Dutton & Wentworth. 1848. 8vo. 75 cts.

WE noticed this work in our last volume, on its first appearance, as a pamphlet of 55 pages. We are gratified to find that the interest manifested in the subject, and the value put upon Mr. ALLEN's experience by the public, has been such that a second edition has been called for.

In fact, however, this second edition is almost a new work; having expanded from the size of a pamphlet to a respectable octavo of 247 pages,—illustrated with the necessary cuts, showing the training of vines, the construction of vineries, &c.

In the work, as it now appears, Mr. ALLEN has not only given us very fully the results of his own well grounded experience in the culture of the grape under glass, but, in order that his readers may have the whole subject placed before them, he has also given the opinions and practice of the most successful cultivators of the vine abroad.

After looking through the work, we confess by far the most valuable part of it, to American readers, for whose use the work is intended, is the account of the author's own practice. The difference between the climate of Europe and that of our northern states, is so great that, for the culture of the vine under glass, we need a code of rules especially adapted to our wants. A new theory is worth little in this matter. Only a person with the experience and skill acquired, as the author of this work has acquired them, can be fully able to give these rules; and while it is interesting to know what cultivators in other countries do, it is much more interesting to know what has

been, and what should be done here to ensure success. This we think the reader of the work before us will be at no loss to discover, if he keeps before him the American practice, as pointed out by Mr. ALLEN.

The following items, which we gather from the work, will show some of the outlines of this experience.

The best form for a cold-house for foreign grapes is the spar-roof; for a forcing house, a lean-to roof is much preferable. Minute directions are given for the construction of both these forms of houses, both with and without a heating apparatus. The cost of a spar-roofed house, 80 feet long by 22 feet wide, at Salem, Mass., is \$1,000, or \$12.50 the running foot. For a lean-to house, without fire heat, the estimate (based on actual cost,) is \$8 per running foot. Ten dollars the running foot, Mr. ALLEN states as "the lowest price at which a plain grapery, with a simple furnace, can be built, with the vines planted, and all complete." These are, we think, just estimates; though, in portions of the country where materials are cheaper, the cost will be less by 20 per cent.

Mr. ALLEN is clearly in favor of having the border *outside* of the house. He makes it three feet deep, (excavating two feet,) and composes it as follows: one-half loam, one-fourth bones, or other strong manure, one-eighth oyster shells, or lime and brick rubbish, and one-eighth rotten stable manure.

"I am willing to admit," says Mr. A., "that vines do as well when planted in an inside border, and when, as it is said, [alluding to the English practice,] they are well managed; but they require *more care* in watering, etc. I am not willing to al-

low that they do better, and would never advise the rafter vines to be thus placed, unless they can roam at pleasure in the open border. When the vines are planted on the inside, the roots will grow with rapidity, and *push as straight as possible for the open border*; thus proving, that they prefer to be under the influence of the full effects of the sun, air, and rain upon the soil."

One pound of sulphur to every square foot of the house is dusted on the floor early in July, to prevent mildew.

Spur-pruning is decidedly preferred; and twenty pounds of fruit is the average annual crop which may be expected from five year old vines, well treated.

Selections of the best foreign varieties are given for the cold-house, the retarding-house, and the forcing-house. A brief description is also given of all the finest table grapes known, a larger number of which have, we believe, been proved by Mr. ALLEN, than by any other cultivator in the United States. We extract some account of a few rare sorts, which will interest grape growers who have not yet seen the work:

"Chasselas Musque.—Cracks badly; but when grown in a part of the grapery, where there is a free circulation of air, it does well in usual seasons.

"Cannon Hall Muscat.—Sets very badly; the berries are large and very handsome, and not so high flavored as the Muscat of Alexandria. A late variety."

"Wilmot's New Black Hamburg.—Has proved fine. This has large, round, very black berries, with a hammered (flattened) appearance."

"Pitmaston White Cluster.—A very fine early variety; the bunch is of a medium size, the berries are round and compact. This is a very desirable variety. The *Scotch White Cluster* is the same as this, or very much like it."

"Victoria Hamburg.—There is no doubt that this is an improved variety of the old Hamburg."

"Charlsworth Tokay.—Excellent, with a muscat flavor. The Gardener's Chronicle for 1847, p. 624, says perhaps it is not different from the white muscat of Alexandria. The grape which is received from England under this name, is

more like the White Frontignan, but one month later than that kind."

"Palestine.—The bunches of this variety are enormous, and the berries are oval, large and white; the shoulders or stems are very long, and the berries are in clusters at long intervals."

"August Muscat.—A very weak growing vine. It is undoubtedly the earliest grape grown, and will ripen its fruit when highly forced, in three months."

"Red Chasselas.—This is a good bearer, with a fine flavor; the berries are as large as the *Bar-Sur Aube*. This may be distinguished from the Rose or Violet Chasselas, by the singularity of the berries, which are colored from their first formation. At maturity, it is sometimes highly colored, but not infrequently, is of a pale red. The young shoots are bright red."

"Zinfindal.—The branches are large, often with two shoulders on the same side, nearly as large as the main bunch. The berries are medium size, round, and very black, with a thick bloom; requires to hang several weeks after coloring, before it is ripe. I cannot find this grape described in any book."

"Verdelho.—This is a small, oval, white grape, of the finest quality. The vine is very strong grown, and bears great crops. It is a favorite variety for the table, as well as for wine, in Madeira and the Azores. It is a later grape than the Black Hamburg."

"Royal Muscadine.—This grape, in respect to size, color, and flavor of the fruit, corresponds exactly with the *Chasselas de Bar-sur-Aube*, *Chasselas of Fontainebleau*, and the *Early White Muscadine* of the French, yet in the size of the bunch, it is quite distinct; the *Royal Muscadine* growing to a very large size, and having large shoulders, the bunches often weighing four, five and six pounds."

"Bowker.—This is a grape raised in the garden of JOEL BOWKER, Esq., of Salem, Mass., from the seed of the Bloom Raisin, imported from Malaga. It is a great bearer. Its fruit handsome, the bunch large, closely set, berries roundish, inclining to oval, white, and of a pleasant flavor, without any musk. It is quite as handsome as the *White Hamburg*, and a better fruit."

Notices of a large number of other varieties, of more or less interest, are also given. We should gather, from Mr. ALLEN's select list, that the following are his *ten favorite sorts* for vine culture:

Black Hamburg,	Pitmaston Whi. Cluster.
Wilmot's New do.	Royal Muscadine,
Victoria do.	Josling's St. Albans,
White Frontignan,	Golden Chasselas,
Grizzly Frontignan,	Rose Chasselas.

A considerable portion of the volume is also devoted to the cultivation of the native

grapes. In a large part of New-England the Isabella and Catawba grapes—which are so valuable for their productiveness, and hardiness, and easy culture, in the middle and eastern states—are almost worthless. We have even tasted Isabellas, grown on a south wall near Boston, so poor and insipid that we should never have recognized them as the same saccharine (though still somewhat pulpy) fruit we cultivate near N. Y.

These native grapes, indeed, require our warm sun, and a long summer, to bring out their full flavor. Their culture has already become of considerable importance in many parts of the Union. Especially on the Hudson for the table, and on the Ohio for wine, large vineyards already exist, and more are every year being planted.

The best modes of pruning the native vine are given at length in this work; and they are followed by interesting details of vineyard culture, from some of our most successful *vignerons*,—Mr. CLEVELAND, of N. J., Mr. GOODWIN, of Ky., Dr. UNDERHILL, of N. Y., etc.

The multiplication, in the neighborhood of all our large cities, of glass structures for the culture of the foreign grape, shows the interest in this subject among the wealthier portions of horticulturists, and the facility with which the finest varieties, in this latitude at least, can be produced, without fire heat, is now so well established that immense quantities are now regularly grown for the supply of the markets of New-York, Boston and Philadelphia. In these two latter cities, indeed, Black Hamburg and other fine sorts grown under glass, were sold last season at lower prices than fruit of the same quality is ever afforded in England, or the north of Europe; and many *tons* of them were sold in New-York alone.

This work of Mr. ALLEN's, presenting, as it does, the experience of one of the best practical grape-growers in the United States, must become the hand-book and guide of every cultivator among us, who is desirous of informing himself fully upon the subject.

FOREIGN NOTICES.

AN AGRICULTURAL CONGRESS.—An Agricultural Congress, composed of more than 300 gentlemen, interested in agriculture, and sent as deputies from different parts of the country, sat in Paris last year, for a fortnight, to discuss practical questions in agriculture, and likewise political questions bearing upon it, which was done with great ability. At Poissy, the minister of agriculture distributed premiums of large amount, and many circumstances indicated an active, an increased, and increasing attention to this great subject. *Colman's Report*, No. ix and x.

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AGRICULTURAL COLONY AT METTRAY.—There are other institutions for agricultural education in France, which I visited with great interest, a notice of one of which, will not, I hope, be unacceptable; the one at Mettray, near Tows, about 150 miles from Paris. The colony at Mettray, was founded in the spirit of the good Samaritan, which succors the wounded and forsaken traveller by the

way-side, takes him home, and there nourishes and cherishes him. This establishment grew out of the compassion of two gentlemen of high rank and fortune, who were moved to essay what could be done for the rescue of the unfortunate, condemned, and vagabond boys, to save them if possible from destruction, and give them the power of obtaining an honest living. It is not consistent with my plan, in this place, to go further into the account of the institution, than as a school of agriculture, though the directors propose three objects of instruction; to qualify their pupils for farmers, sailors, or soldiers. The discipline of the establishment is a military one. They have a full-rigged ship, of ample size, in the yard, that the boys designed for naval life, may here take their first practical lessons; and they have a well stocked farm of 500 acres, which is under direction to be cultivated by the pupils. The institution is situated in a healthy part of the country, and near a large market town. They employ an educated

and experienced agriculturist, as director of the farm. The first object is to render it productive, that it may go as far as it can be made to go, towards defraying the expenses of the institution. The second, to instruct the boys in the best and most improved methods of husbandry.

The institution had its foundation in private subscription, and though in its commencement it had many difficulties to struggle with, it has now a firm establishment. (The VICOMTE DE COURTEILLES gave a large estate, and M. DE METZ, a distinguished philanthropist and a royal counsellor, besides sacrificing his (then) high position at court, lives among the children, and gives, the greatest of all charities, his whole time, his hand, his head, and heart, entirely to this object.)

Besides a farm, there are connected with this institution, a large garden, an extensive nursery, and a manufactory for the manufacture of all the implements, carriages, &c., which are used on the farm. The boys are likewise employed in the making of shoes, caps, clothes and bedding, which are required, and many fancy articles which serve for sale, and give them occupation when by any circumstances they are prevented from out-door labor. The number of pupils is at present 450. It is not intended to keep them after they are sixteen, but they are willing to receive them at the earliest convenient age. I saw several not more than six or seven years old. They live in families of forty or fifty,—separate houses, under the care of a respectable man and his wife, who give them their whole time. This seemed to me a most judicious provision. They have a gardener with them in the fields, who always works with them. Many of them have been condemned at courts of justice for some petty offence, and many of them orphans and friendless, have been taken up in the streets in a condition of miserable vagabondage. The discipline of the institution is altogether moral and paternal. Confinement, abstinence, solitude and disgrace, constitute the chief punishments; but there are no whips, nor blows, nor chains. It has been so far eminently successful. A boy, who had been early familiar with punishments and prisons, and now for some time a resident of Mettray, was asked, why he did not run away from Mettray. His memorable answer was, "because there are no bolts nor bars to prevent me."

I should add, that there is connected with the institution, a hospital, which was a model of cleanliness, good ventilation, and careful attendance; all the services of which are rendered by those indefatigable orders of good, the sisters of charity. *Ibid.*

PYRAMIDAL PEAR TREES ON QUINCE STOCKS.—Having many months ago read in the *Chronicle*, some remarks in disapprobation of Mr. River's Pyramidal Pear trees on Quince stocks, stating, among other objections, that they were stunted unhealthy trees, and that neither good nor handsome fruit could be expected from them, I beg to forward you the size of a few I have just gath-

ered from trees received from the Sawbridge-worth nursery, only 10 months ago; and I can also affirm that the fruit is remarkably handsome, and appears to be beautifully ripened. My belief is that the wood and leaves of several of these trees would not weigh so much as the fruit they have produced. I must also add that they are highly ornamental, and being perfectly upright, are capable of supporting a very heavy crop in proportion to their size; the leaves are large, and of a fine dark green, showing perfect health; nevertheless the growth has been moderate, and they are now full of blossom-buds; in a few years I am confident they will yield a very considerable supply of fine fruit, and from their very pyramidal form will cause scarcely any injury to the garden.

The management these trees require is evident and easily performed; undoubtedly they must be watched, but who can possess these beautiful trees and deny himself the pleasure of watching them? When we have a full grown Pear tree of the height, perhaps of 30 feet, and in full bearing, it may be said there is a balance between the roots and the leaves; in other words the roots are only strong and numerous enough to produce leaves and blossom-buds and fruit, but no additional shoots; on the other hand, every young tree has a tendency to produce more roots than are sufficient to maintain it in a dwarfish form and fruitful state, and if these roots remain undisturbed the shoots will grow vigorously and require severe pruning, and the fruit-buds will of course proportionately decrease; and as the growth depends entirely upon the quantity of matured leaves, it follows, if we want a dwarf tree, we must, as soon as it has reached the required size, limit the number of leaves to that point at which the roots will not stimulate the tree to produce injurious growth.

On the above principle, remove every leaf on every shoot down to the point to which you propose to prune, and as soon as it can be done without danger to the blossom-buds, cut these shoots all away, and in winter, root-prune; but if you have had no occasion to leaf-prune, you will also have no occasion to root-prune in the winter; and if the tree is as large as you wish it to be, well-shaped, and has fine leaves and good fruit, it is perfect. On the other hand, if you have neglected root-pruning where it was needed in the winter, and have permitted, by way of safety to the blossom-buds, the terminal shoots to grow all through the summer, the tree will become so vigorous, and a habit of rank growth will have been so thoroughly established, that the tree must be half killed by excessive root pruning to reduce it to a disposition to produce spurs instead of shoots, and then disease, small leaves, and bad fruit, as named by the writer alluded to, may very likely follow. If leaf-pruning is not liked, nip off every shoot as soon as it reaches the allotted limit; if it shoots again, nip it off one leaf beyond this point, and repeat this until it

ceases to grow; this will not injure the blossom buds, provided the tree has been duly root pruned; in the winter cut the shoot back just beyond the point at which it was first nipped. Let the trees be well mulched, and also well watered through the spring, and the fruit will set well and grow large; towards autumn draw away the mulching and withhold water, and the fruit will ripen perfectly on the latest sorts and be good flavored, and the buds will be plump and bold for the next season. As soon as a tree has acquired the size determined upon, if root pruning be properly performed, it will require scarcely any leaf pruning, or nipping, or winter pruning.

In the early management of these trees, I prefer constantly taking off the leaves to shortening the shoots; I have this year brought a Crassane Pear of 30 years' growth, and which never produced a tenth part of a crop, into the most promising state as respects blossom buds, merely by leaving all the spring-produced fore-right shoots, and taking all the leaves from them; the leaves on the spurs are unusually large, but not a single summer shoot has been produced. I should also state that this tree has been pruned in various ways, sometimes by removing all the fore-right shoots, sometimes by leaving them all on, and at other times by breaking them down and letting them hang, and again by removing half and shortening the other half in July, and removing entirely in winter; but in all these various modes, summer shoots, so destructive to blossom-buds, have been produced from the spurs, and leaf-pruning has cured this apparently incurable evil.

Circumference of the Pears.

Napoleon	9 in. by 8	Jalvie	9 in. by 8
De Cure	10 " 8	Buerre d'Arem-	
Passe Colmar	7 " 7	berg.	8½ " 8
" Dore	7½ " 7	Gratioli of Jersey	9 " 8½
" Gris	7 " 6	Louise Bonne of	
St. Germain	7½ " 6	Jersey	9 " 7½
Doyenne Goubalt	7½ " 7	Buerre d'Amalis	9½ " 8½
Easter Buerre	10 " 8½	Buerre Capiau-	
Colmar d'Arem-		mont	8½ " 7
berg	10½ " 10½	Thompson's	7½ " 7½

The Easter Beurre, is the only tree not planted last autumn. *Y. Gard. Chron.*

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HARDINESS OF THE CAMELLIA.—Is the Camellia a green-house plant? This is a question which may very properly be asked, now that the nature of plants is better understood than it was twenty years ago. The majority of our readers will of course answer the question in the affirmative; let us see whether the evidence justifies their opinion.

In many parts of England—near London, for example—the Camellia lives out of doors without protection through very severe winters, and retains the most robust health. In the hard winter of 1837-8, it bore without shelter a temperature of 0° Fahr., or 32 degrees of frost; and in several places it passed through a cold of 6 degrees, 9 degrees, 12 degrees, 14 degrees Fahr., without damage. In that winter, Camellias lived in the

Horticultural Gardens in 4-inch brick pits covered with mats, through a cold of 4½ degrees below zero; in other words, they sustained 36½ of frost, with only such a shelter as thin brick walls, a glass sash, and a few mats could give them. One of them was *Camellia reticulata*, which still retains the place it occupied in 1837-8, and no plant can possibly be in higher health, or flower more gloriously.

If we look at the climate in which the Camellia grows wild, and becomes a large tree, we find that it is placed by nature in the midst of rigorous winters. Japan is its fatherland. In Japan, THUNBERG assures us that the cold is intense, snow falling, water freezing, and the thermometer dropping to many degrees below the freezing point, even in the warmest provinces. (*Sic etiam frigus hiemale, ad plures gradus infra punctum congelationis, intensum admodum est, imprimis cum ventibus e borea et orienti venientibus. Hieme et aqua congelatur in glaciem et nix cadit, etiam in regionibus meridionalibus.*)

The Camellia bush is also cultivated all over those parts of China which Europeans have visited. The climate of Shanghai, N. lat. 31 degrees 24 minutes, may be taken to represent that of the south of Japan, rendered however a little more rigorous by its continental position; at that place, we learn from Mr. BALL, that in the winter of 1845-6, the Woosung river was sufficiently frozen to afford the English an opportunity of indulging in the amusement of skating. It further appears that "snow will occasionally lie on the extensive alluvial plain of Shanghai for 10 days together, and more than a foot deep." It is not an inference, then, but a fact, that "a remarkable agreement exists between the temperature of Shanghai and the port of Nagasaki, in Japan." We may take this to show the winter climate of the birthplace of the Camellia, and of the adjoining countries; but the whole district in China in which the shrub is cultivated for ornament is far more rigorous than gardeners suppose, who look upon China as a country much more temperate than Great Britain, seeing that rice is grown in the fields, and stove plants in some sheltered valleys. Extracts from Mr. BALL's valuable work * tell a very different tale.

At Canton "it is not an exaggeration to say that every year the rice fields in the neighborhood are frozen for a few days, and that ice the thickness of a crown piece, is occasionally seen carried through the streets for sale. From the middle of December to the end of March, Europeans are clad in their winter garments, and their houses are furnished with carpets, curtains, and fires. Nor is the thermometer a correct index of the intensity of the cold, as regards our sensations, owing to the force and dryness of the wind."

"In the green tea country, situated in the district of Whey-chew-fu, N. L. 29 degrees 58

* "An account of the Cultivation and Manufacture of Tea in China," 8 vo., Longman's.

minutes 30 seconds, in the province of Kiang-nan, the northern winds begin to prevail, the Chinese say, in September. In October, persons in easy circumstances begin to clothe themselves in their fur dresses; and in November the winter (or rather, perhaps, the N. E. monsoon) regularly sets in; when the young Tea shrubs are said to be bound round with wisps of straw, to prevent them from being broken or injured by the wind and snow which falls in the winter season. The severity of winter, however, is not felt before December. From this time until March, the weather continues cold; frost frequently prevails, and snow occasionally; water freezes in the house; but the Chinese houses are badly put together; windows and doors are roughly fitted; in fact, they are built for hot weather, not for cold. The Chinese defend themselves against cold by an additional quantity and different quality of clothing; their houses being thus much exposed to every change of temperature, a little tea accidentally left in a tea-cup over night in any of the rooms, will occasionally be found frozen in the morning."

"The Bohea country, in Fokien, differs little from the Hyson district in point of temperature. The tea men describe the cold as less severe; and the fall of snow as well as the thickness of the ice, as somewhat less. Indeed, it is a mountainous district, with sheltered valleys, fenced in and protected from cold north-easterly and north-westerly winds by the lofty and continuous range of mountains which forms the barrier between this province and those of Chekiang and Kiangsee. December and January are considered the coldest months. It is said that the Kieu-kiö-kee, a shallow stream which winds about the Bohea mountains, is annually frozen over. Here vagrants are seen ranging themselves along the most frequented parts, begging alms, and exciting the compassion of passengers by strewing paddy-husk on the ice, to prevent slipping."

In the east of Fokien, Father CARPINA, long resident there, assured Mr. BALL that "the Tea shrubs were neither injured nor the harvest retarded by the cold of 1815, notwithstanding there fell in the month of February four spans, (about 33 inches English,) of snow in Fo-gan, lat. 27 degrees, 4 minutes, 48 seconds, and six spans in Ning-te; so that the covers to the Indigo plants, strongly fixed to protect them from the frost, sun, and wind, gave way under the weight of the snow. At the close of the same year, about the middle of December, some days of severe cold and frost occurred. Upon one occasion, about 3 o'clock in the afternoon, on a beautiful sunny day," he observes, "I saw two boys, each with a piece of ice the size of a coach window, and an inch in thickness, which they had taken out of the fields in the neighborhood. I also observed, on the 24th January, of the present year, (1816,) the surface of the water in the Mo-yang was frozen, breaking and flying about like glass to the

stroke of the oar. The volume of water in this river is equal to that of the Guadalquivir, at the passage of Cordova. It freezes in these parts very often."

Many other statements to the same effect might be quoted, but these suffice. They show conclusively that the Camellia is found wild in a country with rigorous winters, and is cultivated in another in which the severity of the season is greater, rather than less.

If we look at the plants which we have in our gardens from the country of the Camellia, they will be found to be among the most hardy exotics which we possess. *Cydonia* (*alias* *Pyrus*) *Japonica*, *Wistaria* (*alias* *Glycine*) *sinensis*, *Cryptomeria*, the *Moutan*, *Weigela*, *Forsythia*, *Chimonanthus*—who has seen them hurt by English frosts? Thus it appears that the companions of the Camellia, in its own woods, have no such tenderness of constitution as to demand a greenhouse.

Is the Camellia, then, a greenhouse plant? We shall endeavor to find an answer to the question in our next week's publication.—*Gard. Chron.*

[The Camellia has been kept through the winter in a cold pit, here, and perhaps will prove hardy at Baltimore. Near Charleston, S. C., there are specimens growing in the open garden, 20 feet high.—*ED. HORT.*]

LIME VS. INSECTS.—I beg to assure your correspondent that lime may be applied with the most perfect safety to his trees, shrubs, &c.; and will also prove certain destruction to the slug tribe. With respect to the quantity, that must depend on the nature of the soil. In April last, having then recently obtained possession of a garden, &c., that had been greatly neglected, and was overrun with slugs, I spread quick lime over the whole, (vegetables, shrubs, grass, and orchard,) at the rate of about 80 bushels to the acre, so that all through that month we appeared to be in the midst of winter, with the ground covered with snow, even the evergreens being white. The result was, that not a slug was seen till the rains of October, and but very few then. The vegetables have been pretty good, and the growth and vigour of the evergreens have been quite remarkable. The soil is clay. February would be a very good time to lay on the lime. *E. S. Gard. Chron.*

SALE OF DEODARS.—About 4000 plants, from seed, of this fine Conifer, were sold by Mr. Stevens yesterday. They fetched, on an average, £7 per 100 plants, of from 1½ to 2 feet in height. —*Gard. Chron., Nov. 18.*

RUSSIAN METHOD OF TRAINING APPLE, CHERRY, AND PLUM TREES, BY MR. JOSEPH BUSCH.—The severity of the winter at St. Petersburg is so great that few fruit trees will survive it, even with careful matting; to prevent the loss which is thus usually sustained, I have for more than twenty

years pursued a mode of training which has been attended with complete success. It consists in leading the branches of the trees on horizontal trellises only ten or twelve inches from the ground. When the winter sets in, there are heavy falls of snow; and as the frost increases, the snow generally augments, by which the trees are entirely buried, and receive no injury from the most intense frost. The winters of 1819 and 1820 were very severe, notwithstanding which, last summer, I had a great crop of apples, and all of the tender sorts, while none of the gardens in the neighborhood produced any; even many of their trees, although doubly matted, were killed. From my Green Gage and Orleans Plums I gathered ripe fruit on the 29th September last; I had also a very full crop of Morello Cherries. Another very great advantage of training trees in the above method consists in the growth of the wood, it being of equal strength, and the fruit produced being all alike, the bloom comes out much earlier, and the crop ripens sooner. The trees are always clean and free from insects; I have observed this even while some standards near them have had their leaves curled by aphides. The only cherry that does not succeed in this way is our Black-heart; this I attribute to the damps which affect the early blossoms, but in a milder climate this injury would be obviated by placing the trellis higher from the ground. When the trellis decays under the apples, I never renew it, as the trees always keep (from the strength of their branches) their horizontal position. There are other advantages of treating fruit trees in this manner: they come sooner into bearing, and their fruit is not affected by high winds. I never gather the apples, but let them drop off, for the distance they fall is not sufficient to bruise them. Probably pears trained in this way would answer well in England. *Hort. Magazine.*

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THE FORCING OF GRAPES.—Supposing a house devoted to grapes, and we were desirous of having several seasons of fruit, there is nothing more simple than the required management. But it should always be remembered that the same plant should always be forced in the same degree, and by such means it is never cheated of its season of rest. We are not going now to describe a thing actually carried out, but contrary to our general mode of doing things, we are starting a theory to explain a practice that we have adopted at separate periods, but which we have never fully developed in one house. The grape we have chosen for our experiment is the Black Hamburg, a grape that is a universal favorite, not less for its beauty than its flavor. Plant as many vines to your house as you have rafters to the roof; grow but one branch to each rafter; construct your house so that you can withdraw this branch from the inside, and keep it for a while outside whenever you please. This branch

has to be renewed every year, so that, inside the house you have the branch which has fruit, and the shoot which is going to supply its place next year growing by the side of it. Now, the regulation of the seasons for the different grapes may be thus planned:—Plant the vines outside, and contrive to take them into the house close under the roof, by leaving out one pane of glass, and providing some means of stopping up the vacancy round the stem when it is in; and the same vacancy will enable you to draw out the vine whenever you wish it. Say one-third of the vines are put in the house at Michaelmas, one-third in January, one-third in May; keep the house up to forcing heat always; as soon as the single shoot of the Michaelmas vine has grown fully to the length of the rafters, top it, and when the leaves turn, draw it out of the house through the vacant space left for it (and only temporarily filled up to keep the air out,) and there let its wood ripen. In like manner, when the vines taken into the house in January are in the same state, that is to say, the shoots have grown the length of the rafters, top them, and when their leaves turn, draw the shoots out of the house. So also with the third lot put in, in May. Replace them in the house at a proper season, that is to say, the same time as the previous year. There may be bunches of grapes on the vines when the side shoot intended to bear the next year is withdrawn, but this need not be disturbed until the grapes are off, when the vine may be cut away to just above the shoot. It may, however, be necessary to disturb the bearing part before you can draw out the young branch. This will not matter if half of it were drawn out, so that the part which had the grapes on were inside; and if there were any half way up, it is clear that the vine might be dragged half way out before it would withdraw any grapes. This is mentioned because many people keep the grapes hanging as long as they can; and it will not interfere with the bearing branch for the next year if they do so. The contrivance for withdrawing the vine is not new, but very few practice it where they can afford to keep separate houses for the different seasons; when, however, you have but one house, and wish the grapes to come at different seasons, this is the only way that we know of. As soon as the grapes are off, you may either draw the fruiting part out, and cut it off at the time you put the new branch in, or you may cut it off directly. It is to be observed, that the great object is to be exact with the several seasons of returning the new branch to the house; and the temperature of the house must never materially vary, except when the sun is powerful and raises the temperature more than usual, but these are the times to give air. Nothing need be done to the branch when returned to the house but laying it along the rafter by means of staples, and cords or wires; the treatment in other respects the same as usual. Here will be three seasons of grapes, lasting nearly the whole year in perfection. *Hort. Magazine.*

DOMESTIC NOTICES.

FALL PIPPINS.—We received from Messrs. BISEL & HOOKER, of Rochester, N. Y., a box of these apples, asking an opinion of their true name, and stating that they bear the name of "Holland Pippin," in Western New York.

The Holland Pippin, though considerably resembling this apple in the growth of the tree, and size and shape of the fruit, is a totally distinct apple from the Fall pippin. In fact, while the Fall pippin is one of the best autumn table apples, (at least in this district,) the Holland pippin is of very inferior quality for the dessert, and is, in fact, only a *cooking* apple. As a kitchen fruit, however, it is one of the most valuable *summer* fruits we know—for it bears regularly and well, comes into use at the beginning of August, and continues fit for pies, tarts, and sauce, *until* October, when the Fall pippin *begins* to ripen. The Holland pippin is fit for use while the skin is quite green, but the Fall pippin, not until it turns quite yellow. Finally, the stalk of the Holland pippin is short, and set in a wide cavity, while that of the Fall pippin is large, and set in a cavity often narrow, and comparatively shallow. With these points of difference, these two apples ought not to be confounded.

ST. MARTIN'S QUETSCH.—This German Plum proves to be one of the most valuable late varieties yet introduced from abroad. It has borne in two or three gardens on the Hudson, and we have a tree four feet in height in our fruit garden, every branch of which, this season, was so literally loaded with its beautiful bright yellow fruit, (notwithstanding that it was also making a vigorous growth,) that it was quite a spectacle to gaze at. The fruit ripens about the middle of October, and keeps a long while. Its flavor is excellent, and it will undoubtedly be a profitable sort to grow for market.

WINTERING PLANTS IN PITS.—*Dear Sir:* A good many of your readers, who like myself, cannot afford to have a green-house, and yet want to grow a great many exotics, such as *Verbenas*, *Scarlet Geraniums*, *Petunias*, &c., for ornamenting their gardens in summer, may not be aware how cheaply the matter may be done by means of a pit.

A "pit," on any rough way, is nothing more than a long hot-bed frame, made of strong rough plank, and sunk nearly level with the surface of the ground—or nearly level at the front, and about 6 inches above it at the rear, so as throw off the water. Mine is sunk $2\frac{1}{2}$ feet deep. In the first place the soil should all be dug out, of the size of the frame, and about a foot deeper than you mean to have it inside. This foot must be filled up with small stones to make the floor perfectly dry; and if the spot is at all damp, there ought to be a small drain, also filled with stones, leading away from it.

Over the stones in the bottom of the pit, put a foot or more of coal ashes, to form a dry floor for the pots. When you have sunk the frame, it should be filled up all round it with dry tan, or what is still better, with square pieces of turf, such as is used for fuel. This lining is a better non-conductor than the soil, and you should heap it up, on the outside, quite level with the edge of the frame all round. There ought to be *double* sashes to cover the frame, with a space of about 8 inches between them, to make it secure against all possibility of frost. (The outside sashes will do for hot-beds in spring.) In all fine, mild days in winter, I open the lights and give air freely, so long as there is no frost. At night, and in cold and stormy days, I cover the lights with five or six thicknesses of mats, (or a thick coat of straw.) In this way I succeed in keeping, not only the plants I have named, but also Camellias, Oranges, and almost all the finer green-house plants, in perfect health and beauty. I water very sparingly—often not for many days together, in winter. *An Original Subscriber. Brooklyn, N. Y., Nov. 1848.*

WORCESTER HORTICULTURAL SOCIETY.—We find by the report of Mr. JACQUES, that this, one of the most flourishing societies in Massachusetts, made an annual exhibition of which its members may justly be proud. The soil and position of Worcester are such, that a great variety of fruits are cultivated in high perfection there—and in apples especially, the exhibitions held there, are richer than those of any society in New England. The largest and best collection of pears, (29 varieties,) was shown by J. M. EARLE, President of the Society. The largest collection of apples, (43 varieties,) by SAMUEL COLTON, (who also exhibited 27 varieties of pears, 15 varieties of peaches, and 7 of Plums.) The premium for the *best* collection of apples was awarded to WM. C. CAPRON. GEO. JACQUES exhibited 23 varieties of apples, 7 varieties of pears, 8 varieties of peaches. Among the other leading contributors, were B. F. THOMAS, SILAS ALLEN, PETER FAY, D. W. LINCOLN, JOEL KNAPP, HON. LEVI LINCOLN, &c.

Among the fruits particularly noticed by the committee, we observe an old favorite of ours, the *Brevoort* peach, shown by Mr. MESSENGER, of which the committee say, "one of the highest flavored and most delicious of all peaches." Specimens of *Flemish Beauty* took the first premium among the pears exhibited, and *Louise Bonne de Jersey*, the second. *Hubbardston Nonsuch*, took the first premium among apples. We copy also the following note by the committee, on *Leland's Pippin*: "This is one of the handsomest apples we ever saw. Color on the shady side, a greenish yellow ground, mottled with crimson stripes; on the sunny side, becoming a dark crimson. Size

and form, not very different from the Baldwin. The flavor is also most excellent, and a tree of this variety deserves a place in the smallest collection. Season, October to winter."

DR. WORKMAN exhibited magnificent specimens of St. Michael (*White Doyenne*,) pears, grown on *quince stocks*—"under which mode of culture this fine old variety retains its ancient reputation."

More than three thousand visitors attended the exhibition. The hall was most tastefully decorated by the ladies of Worcester.

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WATER IN LEVEL COUNTRIES.—*Dear Sir:* A constant supply of running water, whether for the ornamental gardener or farmer, is a desideratum to be sought by every possible means. Its beauty in the hands of the one, and its utility in the hands of the other, are qualities too obvious to require comment. The great point to be attained, is a reservoir, at a sufficient elevation to supply the premises, so that the kitchen, the bath, the fountain, the garden, or the pasture, may be furnished with a living stream. In many localities, Nature has made her own arrangements for this supply. Where the mountain or hill-side sends forth its gushing *jet d'eau*, she has required of man only such simple apparatus as the first impression would suggest for conducting it to the point desired; but she has left him to seek out many inventions whereby to give this indispensable element an *upward* current, where she has failed to furnish a *downward*.

Primitive hydraulics as far as we are informed by the records of the olden time, furnished only the pitcher and the watering trough, or such like apparatus. The bucket and windlass succeeded, and we have them yet, as well as other more complicated labor-saving machines. Where there are springs or running brooks, too low for a fountain head, the Water Ram, described in the Horticulturist for August, 1847, is doubtless the simplest, cheapest, and best machine yet invented, by which a running stream may be made to perform the labor of raising itself to the desired elevation. But I am writing for the West, an immense ambit of *level country*, whose gentle elevations and broad fertile prairies furnish thousands of eligible sites, and hundreds of thousands of acres of valuable land, without any constant supply of running water from spring or brook. I do not mean to say we have not fine springs and running brooks. We have, and none better; but not as in a country of hills and mountains; for we have not their numerous elevations to catch from every passing cloud, and concentrate through their numberless veins, the material for their supply.

Our main dependence is, and must be, upon wells and cisterns; and although a cistern may be located in the top of a carriage house, or other out-building, yet such an arrangement, besides furnishing, necessarily, a very limited supply, is but an indifferent substitute for a running stream.

Nor can it ever come into general use, particularly, where a sufficiency for irrigation and "*Stock Water*" (as we out west here, call the supply of the pasture,) is needed. As wells and cisterns below the common level are to furnish us water, the question which now interests us is, How is it to be brought to the required elevation? True, we have many a blooming RACHEL, and not a few JACOBS, who would willingly assist them in drawing water for their flocks; but we would gladly relieve them of that burden, trusting that they will be at no loss in drawing sympathy from other fountains than the well, and by other means than the rope and bucket.

The common suction pump, if the required elevation is not beyond the atmospheric pressure, and the forcing pump, if it is, are apparently the best adapted to the end in view, of anything now in use; but what power shall be applied? From what is said above, you are perhaps looking for an answer to this query. No such thing. It is easy to ask questions, but to answer them truly and intelligibly, is a different affair. However, since I am asking questions, I may as well push my inquiries a little further, hoping that you, or some of your intelligent correspondents may be able to throw some light upon the subject. How far can electro-magnetism be applied to the propulsion of machinery? Could not a very simple apparatus be constructed, to be propelled by that motive power, that would supply the place of the steam engine, in driving a small forcing pump, which would require but little attention, save at least one man's labor, and give a small but regular and constant supply of water?

I am aware that this inquiry brings us upon troublesome ground; but it is the business of the intelligent cultivator to remove stumps, stones, and other obstructions, which have long encumbered the surface of our good mother earth, and he must now and then tug at those which science has dug up and left in the road, before he can plough a straight furrow.

Admitting that a rotary motion can be produced by electro-magnetism, the next question is, what will it cost? If we run a parallel between this and steam, the inquiry, it is said, involves the question of chemical equivalents. I am not sure that it does. Prof. LIEBIG states the proposition thus: The oxidation of zinc, is but another name for burning it (for example) under a steam boiler. Then, which will produce the greatest motive power, the price of a given quantity of zinc or coal? If this be the only true stating of the question, it is an end of the matter, and my suggestions about applying this power to a forcing pump are not worth the time it will take to read them; for, according to the same author, six pounds weight of zinc, in combining with oxygen, will develop no more heat than one pound of coal. Is there no way of getting by the steam engine, that is, in the cost of the motive power?

Few men, I presume, living at a distance from

city water-works, would think of furnishing their country seats or farms with a constant supply of running water by means of the steam engine. I do not know how long this may be said, in this high pressure age of improvements; but I speak of the present. I have been thinking upon the subject, and hoping, rather than expecting, that experiments might demonstrate that the battery could be substituted for the boiler, and, at least the expense of an engineer and fuel saved. The question may have been examined, and may be familiar to you. If so, you would doubtless confer a favor upon many who are alike uninformed with myself by giving the result of your experience and observation. If this can be accomplished somewhat in the manner I have suggested, or in any other way, as easily attainable, what a change would be effected in this and many similar localities! Water, the "River of Life," to every vegetable, thus easily raised from our deepest wells, might be carried to an elevated tank or reservoir, which like the lake in the vision of Ortrugral, the supply, though slow, yet constant, would keep always full. We shall then have accomplished what nature would have done for us, had she given us a mountain stream, or bubbling brook. Our country seats will be supplied with one of the rarest beauties, whereof they are now deprived, and many a cooling stream will gladden the dry and thirsty land. Yours, truly, S. B. G. *Terra Haute, Indiana, Dec. 1, 1848.*

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THE ORIGINAL SECKEL PEAR TREE.—Yesterday, in company with my friend Dr. EMERSON, I visited, for the first time, the original Seckel pear tree. Dr. E. has long been familiar with this tree, and very kindly offered to take me to it. It was pointed out to him, many years ago, by GEO. SHAEFF, Esq., who owns much property in its immediate vicinity. This venerable tree stands in a meadow in Passyunk township, less than a quarter of a mile from the Delaware river, opposite to League Island, not more than half a mile from the mouth of the Schuylkill, and about three and a half miles from the city of Philadelphia. The property on which it stands, is a portion of the Girard estate, and now belongs to the city. It is one of the largest Seckel pear trees I have ever seen, measuring more than *six feet in circumference*, one foot above the ground, and four feet nine inches in circumference higher up. It is about thirty feet high. The head of the tree has the usual rounded appearance so characteristic of this variety, and is in good condition. The trunk, to the height of six feet, is very much decayed on its south-western side. The bark half way around the trunk is entirely gone, together with a great portion of the wood itself, leaving a large hollow in the tree. Such being the decayed condition of the trunk, it is greatly to be feared that the tree will not be able to stand the blasts of many more winters. No artificial support having

been afforded to enable it to resist the dreaded effects of the stormy winds, nature herself is making an effort to provide for the anticipated disaster by throwing up shoots from the trunk, an inch or two above the surface of the earth. But the tree stands on grazing ground, and unless protected by an enclosure, the effort will prove a vain one. From these shoots I cut several scions, for the purpose of ascertaining whether or not the tree had been worked above this point; it is scarcely to be presumed it had been done below it. Some of these scions I now send you to experiment with. I also send some scions cut from the branches of the tree. Very sincerely, yours, *W. D. Brinckle. Philadelphia, Nov. 2, 1848.*

PUBLIC PARKS AND GARDENS.—*Mr. Editor:* Could any effort on my part aid you, in even a remote degree, towards bringing about such a state of feeling as would lead to the end contemplated by your leader on *Public Parks and Gardens*, in your October number, most gladly would it be given. But living in the country, in a new, and to you, remote portion of it, and being too much unknown to have any influence, I can only as one of your subscribers give you "aid and comfort," by assuring you that there is one in the land who goes with you heart and hand.

I have seen a great deal of men, and I have all my life observed, that the *birth-place* had an important bearing on after conduct, and I might also say, with after usefulness. Men born and educated where there was some attention paid to culture of fruits and flowers, where there was fine scenery and a bountiful nature, always speak of their homes with so much fondness. They refer to beautiful landscapes, to their play-grounds, to even the "moss-covered bucket," with so great a love, that I have oftentimes thought a little labor and money expended in ornament, was more than paid by the delightful recollections of home in after life.

So great an effect have these things had upon my mind, that many years ago, I made every endeavor to have one of our interior villages ornamented by planting trees, making lawns, laying out walks, placing seats, &c., &c., but with no effect. In another I tried to have the village burying-ground improved handsomely. In another I offered for my conditions, a liberal aid to have a neatly laid off and ornamented burying-ground, where the widow's friend, and the distressed brother's friend might offer to the wayfarer a last resting place. Failing in all, I resolved, though too poor to do it well, to ornament my own little cot, and thus endear at least one to "home, sweet home."

I frankly admit that the party in the ascendant in these United States, would be foremost in crying out against squandering the people's money, in putting anything in Washington city, much less in New-York or Boston, that would be merely orna-

mental. Yet I, for one of that party, believe a nation that is advancing like ours, should by all means have a large garden, grounds, hot-houses, conservatories, &c., in Washington city. But without the nation's help, it seems to me, that New-York city alone, can by *contribution*, collect enough to try and establish a *real* public park, and keep the grounds in magnificent order. I am sure that the citizens of Philadelphia, with even the improvements they have, can estimate what they might enjoy if the thing was carried out, as in German public parks and gardens. Well do I remember, years gone by, when youth and the world were both brighter, strolling through one of the public squares in Philadelphia, the finest still in the Union, and enjoying to the utmost the varied beauty—the hundreds of human beings who found recreation and health there, as well as the varied and beautiful trees. Old and infirm as I am, I would give more to be seated on one of those seats, where I could see the nurse, with a sweet cherub in her arms; the youth with his hoop and stick; the fair young maiden, with her bright and elastic step—all made happier and better for this breath of rural life in the midst of brick houses. I say I would give more to hear and see such a sight, than OLE BULL, HERTZ, or all the fiddle-strings in the world. Our creator, in painting the beautiful in such an attractive garb, certainly intended we should enjoy it. And why should citizens of our towns and cities, not have this enjoyment. Upon my life, I believe handsome public grounds, with music, would have the happiest influence in allaying riots and debauchery, crime and secret vices. The workman must have recreation. The rich had better give it than to pay for prisons and penitentiaries. I place it on the score of economy alone; and I put the question to every man. Do you know of your own knowledge where the New England man, that was *raised* in one of those neat and orderly and tasteful villages, ever cost the town to which he removed, or the country that he made his home, one dime, either as a support needed by drunkenness or laziness, or for prison or jail fees? I have noted that those born and raised in one of those sweet villages, was too proud to remain poor, or to do a mean act. I am sincerely yours. *A Mississippi Reader.*

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ROSES IN MISSISSIPPI.—My Noisette *Lamarque* roses have now single stems or trunks of one inch and a half diameter, supported by stakes, at from 6 to 12 feet from the ground. I suffer them to throw off branches which are now covered with large snow-ball-like clusters—sometimes 30 or 40 roses in a cluster. The *Chromatella*, (or Cloth of Gold.) I train in the same way. On a *Gloire de France*, I counted to-day, 40 perfectly formed buds and roses in one cluster—such a crown as Flora herself might have been proud of. Yours, *A. H. Peck, M. D. Port Gibson, Miss. Oct. 7, 1848.*

ORCHIDACEOUS PLANTS.—*Sir:* As plant culture is now engaging the attention of horticulturists so much in this country, as well as in Europe, that we scarcely meet a number of our horticultural periodicals without a lengthened article on some favorite family or tribe, may I be permitted to call the attention of your readers to the fanciful and admirable, (but in this country, much neglected,) order *Orchidaceae*, an order with which, for beauty, curiosity, and fragrance, not one in the vegetable kingdom can vie. The majority of its species present the most pleasing variety of any vegetable production; the great variety of their colors, the delicacy and elegance of their forms, the duration of their flowering season, and the singularity of their appearance, would, I think, be sufficient recommendation to inspire the most careless observer with a zeal for their cultivation. Besides, the simplicity of their treatment, no longer requiring from us any of those various carefully mixed soils necessary for other plants, but a block of wood, and a *high damp* atmosphere, such as they breathe in their native habitats, would be a farther inducement for introducing them in our gardens. There is no country in which they so abound as the Mexican and Brazilian forests, which are now quite accessible to us, and yet, strange to say, they are almost unknown to American plant cultivators, except by name, whilst they often crowd their stoves with many worthless European species, and leave these charming children of nature unobserved to diffuse their fragrance to the balmy breezes of their native forests.

Their culture is as simple as their forms are unbounded. They require little more than a suitable house, where a high temperature can be maintained, and like many pet-plants, a peculiar treatment. In this country, under a bright sun, they would be more easily cultivated than in Britain, where they are an object of considerable emulation among amateurs, but not to the extent they deserve. What, indeed, can be compared for beauty to those superb *Laelias* and *Cattleyas*, what so admirable as those elegant *Stanhopeas*, what so graceful as those *Odontoglossums* and *Oncidiums* that adorn the colossal trees of the Mexican and Brazilian forests, or the beautiful *Sobralias*, with their elegant grass-like foliage, and rich crimson flowers. These are strictly air-plants. Their terrestrial associates are no way inferior to their epiphytial neighbors. What Indian productions so magnificent as those unrivalled *Vanæes* and *Aerides*; what so delicate and beautiful as those *Dendrobiums*, and that gem of the Manilla forests, the Indian Moth-plant, *Phalaenopsis amabilis*, with its flowers of the purest white, and extremely singular lips; nor do I hesitate to say that if the readers of the Horticulturist had a knowledge of their peculiarities, they would, with me, consider them the most exquisitely curious and beautiful of nature's productions. Rich in every shade or variety of color,

airy and fantastic in their habits, but always elegant, replete with the richest aromatic perfumes, or emitting the most refreshing and delicate odors, portraying in the most extraordinary formations of their flowers the miniatures of almost all animated nature—beasts, birds, fishes, insects, and reptiles—nor can even the human species escape their caricatures. Indeed, they combine all the qualities that amateurs seek after, beauty, fragrance, and durability; some retaining their blossoms in perfection eight or ten weeks under proper treatment; and it is among them that we find what was deemed worthy of fitting the foot of the goddess,—the real “Ladies’ Slipper.”

There is no tribe so interesting to the naturalist as the tiny, fairy-like flowers of the Orchids. Dr. LINDLEY says, *Sertum Orchidaceae*, that the resemblance to insects and other animal forms which have been perceived in the orchidaceous plants of Europe, and which have given rise to such names as fly-orchis, spider orchis, &c., &c., may be traced so plainly in the genus *Oberonia* in every species, that it alone would furnish a magazine of new ideas for the grotesque pencil of a German admirer of the wild and preternatural. He also observes that in the genera *Oberonia* and *Drymosa*, PYTHAGORAS would have found a living evidence of animals transmitted into plants. The genus *Pleurothallus* is also remarkable as possessing the smallest Orchidaceous plant known. This diminutive plant, *Pleurothallus muscoides* has no stem. The leaves are two and one-half lines long, its peduncle is as fine as a hair, and about four lines long. The majority of the order inhabit the branches of trees, having nothing more to support their wants than the refreshing dews, warm showers, and pleasant breezes of their native wilderness, and when submitted to artificial treatment in our houses, they grow equally well on bits of wood, branches of trees, &c., whether in a living or decaying state; or on any material they do not actually dislike.

The following geographical distribution of the order, as given in Dr. Lindley’s Vegetable Kingdom, might be interesting to novices in botany:

They are found in all parts of the world except upon the verge of the frozen zone, and in climates remarkable for dryness, in Europe, Asia, and North America, they are seen growing everywhere, in groves, in marshes, and in meadows. In the drier parts of Africa they are rare or unknown. At the Cape of Good Hope they abound in similar situations as in Europe; but in the hot, damp parts of the West and East Indies, in Madagascar and the neighboring islands, in the damp and humid forests of Brazil, in the warm, mild parts of Central America and Western Mexico, in the damp, tropical parts of India, and on the lower mountains of Nepal, the Orchidaceous plants flourish in the greatest variety and profusion, no longer seeking their nutriment from the soil, but clinging to the trunks and limbs of trees, to stones and bare rocks where they vege-

tate, among ferns and other shade-loving plants, in countless thousands; and when transmitted to our houses, they require from us an atmosphere similar to what they enjoy in their native haunts, which can only be obtained by *shade, heat, and moisture*, carefully administered.

Having already exceeded my limits, I will only add, that, if it be acceptable to your readers, I will prepare a list of American Orchidaceae, with all the particulars with which we are acquainted, as an inducement to the cultivation of those most delicious, most curious and beautiful of all known plants. I am, sir, respectfully yours, *M. C.*

[We shall be glad to receive further remarks on the culture of orchidaceous plants. The writer of the above, who is known to us as a gardener of remarkable skill in exotic plants, having recently arrived in the country, expresses to us his surprise that amid the great attention paid to many kinds of gardening here, and even to many kinds of green-house and stove plants, the curious and beautiful air-plants which are the *ultimatum* of exotic culture abroad, are so little known or cultivated.—Ed.]

GREEN-HOUSES—EVERGREENS.—*Dear Sir:* I hope it is your intention to continue the subject of cheap green-houses, and oblige your readers with some estimates of the cost of buildings, stock and tools, adapted to the scale described in your last number of the Horticulturist.

I observe one of your correspondents recommend pruning evergreens, transplanted. I am about planting a good many, and should be glad to know if this is your opinion, and applicable to our pines and hemlocks, and what is the method, to cast out branches, or shorten-in, as in deciduous trees. Your obt. servt. *W. Lenox, Mass.*

[If you cannot get good roots to evergreens, then shorten-in the branches to restore the balance. Always cut the branches in within an inch of the place on the larger branch where it forked out—and apply the *shellac solution* at once.—Ed.]

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SUPERIOR GRAFTING WAX.—The following mixture, viz:

- 1 pint linseed oil;
- 6 pounds rosin,
- 1 pound bees-wax,

makes a better and cheaper wax, than any I have used made from rosin, tallow and beeswax. The oil will admit of a much greater proportion of rosin than the tallow. This wax will give entire satisfaction to whoever shall use it. *T. G. Yeomans. Walworth, N. Y., Nov. 1848.*

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FIRST RATE FRUITS.—The Jefferson Plum, was produced first here this season, and is of very high merit. The Brevort Peach, obtained from Newburgh at the same time, is the finest flavored free-stone we have had in this latitude for many years; so pronounced by many good judges. Yours, very respectfully, *W. C. Wilson. Baltimore, Oct. 1848.*

VINEYARD CULTURE IN INDIANA.—We extract the following account of the grape culture in Indiana, from the new edition of Mr. ALLEN's work on the vine. It is the account of Mr. GOODWIN's experience.—ED.

I have about eight acres in cultivation. The vines are planted in rows, about six feet apart, and at the distance of four feet in the rows. My system of pruning consists simply in shortening-in the wood of the past year's growth from one to a dozen eyes, according to the condition of the vine, and afterwards tying up the new growth to the trellis, from time to time, as it may seem to require support. Stout stakes, about 5½ feet high, with narrow strips of board nailed on them, constitute the best trellis. I tried wire, but the sun heated it to such an extent that it killed the tendrils of the vine, and frequently injured the young wood.

My grapes are principally Catawba; I have a few of the Isabella, but do not use them for wine. The Catawba, as a wine grape, has, in my opinion; no equal among grapes that can be successfully cultivated in our climate.

We have occasionally had the leaves of our vines eaten in places by an insect, but never to an extent sufficient to be injurious. The "rot" is the great enemy we have to contend with. Some seasons twenty gallons of wine per acre can hardly be realized from our vineyards in consequence of it. I have noticed that whenever wheat is injured by the rust, the grape is, to a proportionate extent, affected by the rot. They doubtless originate from a common cause. As to what that cause is, great diversity of opinion exists. My observation does not enable me to give, with confidence, any opinion on the subject.

The young shoots, in spring, are seldom injured by frosts, except in low grounds. This fact is now beginning to be understood by our farmers, and the highest ground is selected for both vineyards and orchards.

I have never tried any of the foreign varieties; Mr. LONGWORTH's experience having satisfied me that it would be but a waste of time and money.

There are a considerable number of vineyards in our county—I cannot of course speak with entire accuracy—but I think I cannot be far wrong in estimating the quantity of land devoted at present to the culture of the grape in this county, at from 100 to 120 acres. In this estimate I do not mean to include small portions, grown merely for family use, but vineyards intended for the manufacture of wine. The quantity will probably be doubled in the course of two years more. The vineyards on the hills seem to do much better than those immediately on the river. In the rich alluvial bottoms they do not succeed well, the fruit almost invariably rotting.

With regard to the *profit*, a careful cultivator may safely calculate on 200 gallons of wine per acre, one year with another; he may with as much certainty calculate on selling the juice at

the press, at from 60 to 80 cents per gallon—making the proceeds per acre from 120 to 160 dollars. The same labor that will cultivate twenty acres of corn, will suffice for ten acres of grapes. The twenty acres of corn, when gathered, may at the best prices and crops, be worth here \$250; the ten acres of grapes from \$1200 to \$1600 dollars. This, however, cannot be expected to last long; as vineyards increase, and they are doing so rapidly, the price of wine must come down; it can be manufactured and sold at 75 cts. per bottle, and then pay the producer better than any other crop he can raise.

The *Champagne* manufactured from the juice of the Catawba, is equal, in my judgment, to the best European brands. I do not manufacture [ferment] my own wine, but sell the juice to the vintners. *Amos Goodwin. Clarkstown, Indiana,*

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GRAFTING VINES.—Permit me to describe a method of grafting the grape upon roots that I have never seen in print.

Cut the old root off, some two inches below the ground, by a horizontal cut. Then choose a gimblet just the size of the scion to be inserted, and bore from one to three or four holes, according to the size of the root, and insert the scions, first removing the loose bark. The holes should be two or three inches in depth, and the scion should fit accurately. I have never known them fail to grow. Old stocks may thus be wholly changed in two years. If the operation is performed so late in the season that the root shows a disposition to bleed, grafting cement must be used. The holes should be [perpendicular,] or in the direction of the grain of the wood. I have never known this method fail, and I have never succeeded with any other, though I have frequently tried both cleft and split grafting. *Amos Goodwin. Ibid.*

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THE DIGNITY OF LABOR IN AMERICA.—In mechanical labor and skill, the absence of all *honour* as an habitual attendant, is, in Europe, equally manifest. I know that luxury purchases, often at a great price, the beautiful results of handicraft and skill. I know that individuals of boldness and energy—those irrepressible spirits whose elasticity no bonds can limit—have occasionally forced their way through all this downward pressure, and have compelled an acknowledgement of their greatness, and a respect for their mighty developments of mental and moral powers, from those titled tribes, who habitually fancy their interest to be in widening the gulf of separation, and insulating their own position as completely as possible. But what are these among so many? Their class are tradesmen and tradespeople still. And the habitual fact in their history is, not only no encouragement to rise, but great discouragement and jealousy of their possible ability to break the shell of *caste*, whose accumulated scales ages have riveted over them. European mechanics feel this fact of discouragement and dishonor, and feel it deeply.

I stood the other day by the bench of an English mechanic, whose remarkable skill I was admiring, and the genius of whose youthful son in his work I was noticing, when the father took from the drawer some beautiful crayon and pencil sketches which this working boy had made. "Ah! sir," said the father, "this is America. My boy was taught all this for nothing, at your public school. Had I stayed at home, he would have lived and died unnoticed at the bench. Here he may take a stand and be honored and encouraged." Yes, and this is but one of the multitude of instances of illustrations, which a knowledge of facts would bring out, of the encouragement which American freedom gives to innate talent.

I know a poor English carpenter, who with the utmost difficulty gathered the needful bread for his family. His children were placed in the public schools of a neighboring city. His eldest son, having no chance of education before, laid hold of his opportunity greedily, passed with honor through all the stages of public education, at the public expense; and on his graduating at the summit of the career of the city's provision, was immediately appointed a teacher, and is now a professor of ancient languages in one of the highest institutions—and honored the more for the industry which has made him, from neglected poverty, what he is. This is America. That boy might have lived and died a beggar in the streets of London, and no titled man have taken him by the hand, to bring out, in an elevating education, the noble powers his Creator had implanted within him.—*Dr. Tyng's Address before the American Institute.*

ANSWERS TO CORRESPONDENTS.

STRAWBERRIES.—*P. W. E.*, (Charleston.) If you will consult vol. 2d, p. 133, you will find excellent practical details for the culture of this fruit. Also, at p. 114, of the present volume, are some highly interesting remarks, (by B., of Poughkeepsie,) on the field culture of strawberries. One hundred bushels to the acre are frequently grown here by the market gardeners. The English *White Wood* strawberry is the only white one cultivated here; it is an excellent sort for family use, bears moderate but regular crops, and continues coming in for a long time. Culture very easy. The Hudson is the most profitable market strawberry, in all soils.

FORCING FRUITS.—*D. L.*, (Roxbury, Mass.) Fifteen-inch pots are usually preferred to boxes for forcing fruit trees. We think the fig would do better in boxes of a larger size. Peaches, nectarines, and other hardy fruit trees, forced in pots, ought to be taken out of the house as soon as the crop is gathered, placed in a partially shaded situation, and the pots plunged in old tan, sawdust, or the like, to keep them cool and moist. Here they should be suffered to be till the forcing season commences, unless the frost should sit in very severe, when they should be carried into a cool airy shed till the forcing season.

Vine borders, that are wholly *inside*, should be well soaked with water in the autumn at the fall of the leaf. They will then not need any more till towards the time of growth, unless they get dry, which should not be allowed.

OSAGE ORANGE HEDGES.—*D. Redmond*, (Utica, Y.) You will find some remarks on this plant, in another column. We do not think it will prove hardy in Utica. Plants may be had of A. SAUL & Co., of this place—and as all trees resist the winter better when clipped annually, as a hedge must be, it is worth your while to plant a small quantity for trial. It grows three times as fast as the Hawthorn, and faster for the first two years, than the Buckthorn.

ARAUCARIA.—*A Lover of Evergreens*, (Pittsburgh, Pa.) *Araucaria imbricata* appears to be quite hardy about New York. Dr. VALK, of Flushing, in a note before us, says, "*my Araucaria imbricata* has been in the open ground four years. Though yet a little tree it does not appear to mind 'Jack Frost' at all, and has grown finely the past summer."

BOOKS.—*A New York Subscriber.* A new edition of *Michaux's Forest trees*, edited by NUTTALL, has just been put to press in Philadelphia: The original Michaux, with 156 colored plates, 3 vols. for \$23, and Nuttall's continuation, 3 vols., 124 colored plates, for \$26. We shall give a list with prices of the other works, in our next number.

STOCKS.—*J. Fulton, jr.*, (Chester co., Pa.) The "horse plum" is not a damson, but a common blue freestone variety, allied to the Orleans, which reproduces itself freely from seed. It takes the bud readily, which the damson does not. The seeds can be had in abundance in New York, or on the Hudson, in the autumn, but we imagine not now. Plum stocks are advertised in quantities, by Mr. GUSTIN, of Morristown, N. J.

MANURES.—*D. L.*, (Roxbury.) We have not found anthracite ashes of the slightest possible benefit when applied to kitchen garden crops—but some fruit trees, as the cherry and grape, are decidedly improved in growth and health by their application.

An Original Subscriber, (New Haven.) Place your heap of charcoal dust behind or near the privy, and have the "chamber lye" poured upon it daily. It will take up all the ammonia and other salts, and be ten times more valuable as a manure, than before.

GREEN-HOUSES.—*An Amateur*, (Buffalo.) The cost of such a green-house as you propose, well built, here, with a brick wall and a furnace and flues, would be about \$8 per running foot, (i. e. for one 30 feet long, \$240.) With you, where lumber is cheaper, if, for the wall, you substitute cedar posts, lined on both sides with plank, and the space filled in with dry tan or charcoal dust, and instead of the flue, a polmaise stove, as described in our last month's leader, it would probably cost about half this sum.

PENNSYLVANIA HORTICULTURAL SOCIETY.

The stated meeting of this Society, was held on the 19th of December, 1848. The display was good, for the season of the year.

The President in the chair.—Premiums were awarded on the occasion.

By the Committee on Plants and Flowers.—For the best hot-house plants, and for the best design of cut flowers, to James Bisset, gardener to James Dundas; for the second best hot-house plants, for the best green-house plants, for the best collection of plants in pots, for the second best design of cut flowers, and for the best basket of cut flowers, to Ben Daniels, gardener to Caleb Cope; for the second best collection of plants in pots, to Jno. G. Smith; for the second best basket of cut flowers, to Maurice Finn, gardener to John Lambert. Special premiums of one dollar, each, were awarded to James Bisset, Robert Kilvington, P. Burk, and B. Daniels, for bouquets.

By the Committee on Fruits.—Special premiums, one of two dollars, to Thomas Hancock, for St. Germain Pears; and one of a dollar each, to James Clark, for Seckel Pears, from the fruit preserver; and to Wm. Perry, for Newark King apples. And the committee award the following premiums for American Seedling fruit, exhibited during the present year, viz: for the Ott Pear, ten dollars, to Samuel Ott, Montgomery county; and for the Jefferies Apple, five dollars, to Isaac Jefferies, Chester county.

By the Committee on Vegetables.—For the best and second best display of vegetables, to Ben Daniels, gardener to Caleb Cope, and for the second best display, to Wm. Johns. And a special premium of one dollar to Anthony Felten, for five Cauliflowers.

The Committee on New Plants, Flowers, etc., reported, that John Sherwood exhibited at the stated meeting, in April, a specimen of the *Spiraea Reesiana*, which he represented as new, and which he had imported from France, last autumn, whence it had been introduced from Japan. The Committee

awarded a premium of three dollars to John Sherwood, for its introduction.

On motion, ordered that three hundred dollars be appropriated for the increase of the Library.

The Library Committee submitted their annual report, by which it appears that sixty volumes have been added during the year, and that the library contains eight hundred volumes.

The Committee for establishing premiums, reported a schedule of premiums, for the ensuing year, which was adopted.

Two amendments were proposed to the By-laws, for consideration.

Members elected.—Prof. J. Rhodes, Deacon C. Hough, Maurice Finn, and John McIntosh.

Objects shown.—By Robert Buist, a very fine collection of plants, not in competition. Among them were the following, recently introduced: *Gerranium Brighton Hero*, *Abutilon venosum*, *Acacia nitida*, and *Hibiscus* from California.

By Ben Daniels, gardener to Caleb Cope—A beautiful collection of plants; a number of species rarely seen at the meetings, of which was a fine specimen of *Littsea geminiflora*, with a stem about twelve feet in height, one half of its length covered with a spike twin flowers; *Phaius maculata*, and several species of *Rhipsalis*—also a number of bouquets, and a fine collection of vegetables.

By James Bisset, gardener to Jas. Dundas, several fine plants and bouquets.

By J. G. Smith, A collection of plants.

By Alex. Parker—A table of *Chrysanthema*.

Fruit.—By Tho. Hancock, St. Germain and Walnut Pears—by James Clark. Seckel pears, from the fruit preserver, in fine flavor—by Wm. Parry, five varieties of apples, of new kinds—by Samuel C. Ford, the Olney apple.

Vegetables.—By Anthony Felten, a very large collection—by Wm. Johns, radishes from the open garden, and tomatoes just cut from the vines.

THO. P. JAMES, Rec. Sec'y.

MASSACHUSETTS HORTICULTURAL SOCIETY.

BUSINESS MEETINGS.

Nov. 16.—President WILDER in the chair. On motion, it was Voted, That a Committee be chosen, to consider and report to the Society, upon the expediency of the adoption by this Society, of some measures to obtain and disseminate information as to the best modes of cultivating fruits.

Voted, That this committee consist of nine persons, to be chosen by the chair, the President of the Society to constitute one of its members; and the following gentlemen were appointed said Committee: Joseph S. Cabot, Chairman; M. P. Wilder, E. M. Richards, Otis Johnson, B. V. French, Samuel Walker, David Haggerston, C. M. Hovey, and Jos. Breck.

Dec. 2.—President, MARSHALL P. WILDER, in the Chair. The Executive Committee submitted the following Report.

The Executive Committee, in accordance with the duty enjoined on them by the By-Laws, recommend that the sum of *Twelve hundred and fifty dollars*, be offered by this Society in Premiums for 1849—that the income of the Appleton, Lowell, Lyman and Bradlee funds, constitute a part of this appropriation, and that the apportionment to the several committees be the same as for the present year.

The Committee would state that the fund for "Special Prizes on Fruits," has been expended, and in consequence of this, the sum now suggested, is less by *One hundred dollars*, than the amount granted for the year 1848. They therefore recommend, in addition to the above, that 10 sets of Coleman's Agricultural Tour, and the Medals remaining on hand, (after the distribution of those already awarded,) be given as *Premiums* or as *Gratuities*, for such objects as are worthy of distinction, and not provided for in the Prize List.

MARSHALL P. WILDER, Ch'n.

Dec. 16.—President, Marshall P. Wilder, in the chair. Letters were received from Monsieur TONGARD, President of La Societe Centrale de Horticulture, Rouen, France, accompanied with a Catalogue of his Nursery, and the Publications of the Society, over which he presides, whereupon it was voted, that the thanks of this Society, with its Transactions, be transmitted to M. Tongard, by the Corresponding Secretary.

A letter was also received from F. R. ELLIOTT, Esq., of Cleveland, Ohio, presenting a bundle of Native Cherry Trees, in 7 sorts, and the thanks of the Society were voted to Mr. Elliott, and the trees placed in the hands of the President for the Society's use.

Mr. SAM'L WALKER, presented, in behalf of the American Institute, of New York, Reports of their 21st Annual Fair and Exhibition, and it was voted—that the thanks of this Society be presented to the American Institute, and the Reports placed on the table for distribution among our members.

E. C. R. WALKER, Rec. Sec'y.

WEEKLY EXHIBITIONS.

Saturday Dec. 3, 1848.

FRUITS—From the President of the Society, excellent specimens of *Buerre d'Arenberg*, *Glout Moreceau*, *Buerre Diel*, *Inconnue Van Mons*, and *Easter Buerre Pears*.

From John Gordon, very splendid specimens of *Easter Buerre Pears*.

From Samuel Walker, Vicar of Winkfield, *Buerre Rance*, *Passé Colmar*, *Caen de France Pears*, *Rhode Island Greening*, *Baldwin*, and *White Seek no-further Apples*.

From A. Dexter, Baldwin, R. I. *Greening*, *Roxbury Russett*, and *Lady Apples*.

From B. V. French, *White Seek-no-further*, and *Conway Apples*.

From Otis Johnson, *Roxbury Russett*, and *Easter Buerre Pears*.

From John Owen, *Newton Pippin* and *Apples*.

P. B. HOVEY, JR.

FRUITS TESTED.—S. Walker: *Baldwin*, *White Seek-no-further*, fine, *Buerre Rance*, *Caen de France*.

B. V. French—*White Seek-no-further*, fine, *Conway*.

John Gordon—*Eastern Buerre*, fine.

Otis Johnson—*Eastern Buerre*, fine.

M. P. Wilder—*Eastern Buerre*, fine, *Buerre Diel*, *Glout Moreceau*, fine, *Inconnue Van Mons*, fine flavor and a promising fruit, *Buerre d'Arenberg*.

Hovey & Co.—*Monarch*, *Glout Moreceau*.

THE
Horticulturist
AND

JOURNAL OF RURAL ART AND RURAL TASTE.

VOL. III.

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No. 8.

OUR READERS very well know that, in the country, whenever anything especially tasteful is to be done, when a church is to be "dressed for Christmas," a public hall festooned for a fair, or a saloon decorated for a horticultural show, we have to entreat the assistance of the fairer half of humanity. All that is most graceful and charming in this way, owes its existence to female hands. Over the heavy exterior of man's handiwork, they weave a fairy-like web of enchantment, which, like our Indian summer haze upon autumn hills, spiritualizes and makes poetical, whatever of rude form or rough outlines may lie beneath.

Knowing all this, as we well do, we write this leader especially for the eyes of the ladies. They are naturally mistresses of the art of embellishment. Men are so stupid, in the main, about these matters, that if the majority of them had their own way there would neither be a ringlet, nor a ruffle, a wreath, nor a nosegay, left in the world. All would be as stiff and as meaningless as their own meagre black coats,—without an atom of the graceful or romantic about them; nothing to awaken a spark of interest, or stir a chord of feeling; nothing, in short, but downright, common place, matter-of-fact. And they undertake to defend it—

the logicians—on the ground of utility, and the spirit of the age! As if trees did not bear lovely blossoms as well as good fruit; as if the sun did not give us rainbows as well as light and warmth; as if there were not still mocking-birds and nightingales as well as ducks and turkeys.

But enough of that. You do not need any arguments to prove that *grace* is a quality as positive as electro-magnetism. Would that you could span the world with it as quickly as Mr. MORSE with his telegraph. To come to the point, we want to talk a little with you about what we call the *drapery* of cottages and gardens; about those beautiful vines, and climbers, and creepers, which nature made on purpose to cover up everything ugly, and to heighten the charm of everything pretty and picturesque. In short, we want your aid and assistance in dressing, embellishing and decorating, not for a single holiday, fair, or festival, but for years, and forever, the *outsides* of our simple cottages and country homes; wreathing them about with such perennial festoons of verdure, and starring them over with such bouquets of delicious odor, that your husbands and brothers would no more think of giving up such houses, than they would of aban-

doning you, (as that beggarly Greek, Theseus, did the lovely Ariadne,) to the misery of solitude on a desolate island.

And what a difference a little of this kind of rural drapery, tastefully arranged, makes in the aspect of a cottage or farmhouse in the country! At the end of the village, for instance, is that old fashioned stone house, which was the homestead of TIM STEADY. First and last, that family lived there two generations; and everything about them had a look of some comfort. But, with the exception of a coat of paint, which the house got once in ten years, nothing was ever done to give the place the least appearance of taste. An old half-decayed ash tree stood near the south door, and a few decrepid and worn-out apple trees behind the house. But there was not a lilac bush, nor a syringo, not a rose bush, nor a honeysuckle, about the whole premises. You would never suppose that a spark of affection for nature, or a gleam of feeling for grace or beauty, in any shape, ever dawned within or around that house.

Well, five years ago the place was put up for sale. There were some things to recommend it. There was a "good well of water;" the house was in excellent repair; and the location was not a bad one. But, though many went to see it, and "liked the place tolerably well," yet there seemed to be a want of heart about it, that made it unattractive, and prevented people from buying it.

It was a good while in the market; but, at last, it fell into the hands of the Widow WINNING and her two daughters. They bought it at a bargain, and must have foreseen its capabilities.

What that house and place is now, it would do your hearts good to see. A porch of rustic trellis-work was built over the front

door-way, simple and pretty hoods upon brackets over the windows, the door-yard was all laid out afresh, the worn out apple trees were dug up, a nice bit of lawn made around the house, and pleasant groups of shrubbery, (mixed with two or three graceful elms,) planted about it. But, most of all, what fixes the attention, is the lovely profusion of flowering vines that enrich the old house; and transform what was a soulless habitation, into a home that captivates all eyes. Even the old and almost leafless ash tree is quite overrun with a creeper, which is stuck full of gay trumpets all summer, that seem to blow many a strain of gladness to the passers by. How many sorts of honeysuckle, clematises, roses, etc., there are on wall or trellis about that cottage, is more than we can tell. Certain it is, however, that half the village, walks past that house of a summer night, and inwardly thanks the fair inmates for the fragrance that steals through the air in its neighborhood; and no less certain is it that this house is now the "admired of all admirers," and that the Widow WINNING has twice refused double the sum it went begging at when it was only the plain and meagre home of TIM STEADY.

Many of you in the country, as we well know, are compelled by circumstances to live in houses which some one else built, or which have, by ill-luck, an ugly expression in every board or block of stone, from the sill of the door to the peak of the roof. Paint won't hide it, nor cleanliness disguise it, however goodly and agreeable things they are. But vines will do both; or, what is better, they will, with their lovely graceful shapes, and rich foliage and flowers, give a new character to the whole exterior. However ugly the wall, however bald the architecture, only give it this fair drapery of leaf and blossom, and nature

will touch it at once with something of grace and beauty.

"What are our favorite vines?" This is what you would ask of us, and this is what we are most anxious to tell you; as we see, already, that no sooner will the spring open, than you will immediately set about the good work.

Our two favorite vines, then, for the adornment of cottages, in the northern states, are the double *Prairie Rose*, and the *Chinese Wistaria*. Why we like these best is, because they have the greatest number of good qualities to recommend them. In the first place, they are hardy, thriving in all soils and exposures; in the second place, they are luxuriant in their growth, and produce an effect in a very short time—after which, they may be kept to the limits of a single pillar on the piazza, or trained over the whole side of a cottage; in the last place, they are rich in the foliage, and beautiful in the blossom.

Now there are many vines more beautiful than these in some respects, but not for this purpose, and taken altogether. For cottage drapery, a *popular* vine must be one that will grow anywhere, with little care, and must need no shelter, and the least possible attention, beyond seeing that it has something to run on, and a looking over, pruning, and tying up once a year—say in early spring. This is precisely the character of these two vines; and hence we think they deserve to be planted from one end of the Union to the other. They will give the greatest amount of beauty, with the least care, and in the greatest number of places.

The *Prairie* roses are, no doubt, known to most of you. They have been raised from seeds of the wild rose of Michigan, which clambers over high trees in the forests, and are remarkable for the profu-

sion of their very double flowers; (so double, that they always look like large pouting buds, rather than full blown roses;) and their extreme hardiness and luxuriance of growth,—shoots of twenty feet, in a single year, being a not uncommon sight. Among all the sorts yet known, the *Queen of the Prairies*, (deep pink,) and *Superba*, (nearly white,) are the best.

We wish we could give our fair readers a glance at a *Chinese Wistaria* in our grounds, as it looked last April. It covered the side of a small cottage completely. If they will imagine a space of 10 by 20 feet, completely draped with *Wistaria* shoots, on which hung, thick as in a flower pattern, at least 500 clusters of the most delicate blossoms, of a tint between pearl and lilac, each bunch of bloom shaped like that of a locust tree, but eight inches to a foot long, and most gracefully pendant from branches just starting into tender green foliage; if, we say, they could see all this, as we saw it, and not utter exclamations of delight, then they deserve to be classed with those women of the nineteenth century, who are thoroughly "fit for sea-captains."

For a cottage climber, that will take care of itself better than almost any other, and embower door and windows with rich foliage and flowers, take the common *Boursault* Rose. Long purplish shoots, foliage always fresh and abundant, and bright purplish blossoms in June, as thick as stars in a midnight sky,—all belong to this plant. Perhaps the richest and prettiest *Boursault*, is the one called by the nurserymen *Amadis*, or *Flegans*; the flower a bright cherry colour, becoming crimson purple as it fades, with a delicate stripe of white through an occasional petal.

There are two very favorite climbers that belong properly to the middle states, as they are a little tender, and need protec-

tion to the north or east. One of them is the Japan Honeysuckle, (*Lonicera japonica*, or *flexuosa*;) the species with very dark, half evergreen leaves, and a profusion of lovely delicate white and fawn coloured blossoms. It is the queen of all honeysuckles for cottage walls, or veranda pillars; its foliage is always so rich; it is entirely free from the white aphis, (which is the pest of the old sorts,) and it blooms (as soon as the plant gets strong,) nearly the whole summer,—affording a perpetual feast of beauty and fragrance. The other, is the Sweet-scented Clematis, (*C. flammula*;) the very type of delicacy and grace, whose flowers are brodered like pale stars over the whole vine in midsummer, and whose perfume is the most spiritual, impalpable, and yet far-spreading of all vegetable odors.

All the honeysuckles are beautiful in the garden, though none of them, except the foregoing, and what are familiarly called the “trumpet honeysuckles,” are fit for the walls of a cottage, because they harbor insects. Nothing, however, can well be prettier than the Red and Yellow Trumpet Honeysuckles, when planted together and allowed to interweave their branches, contrasting the delicate straw colour of the flower tubes of one, with the deep coral-red hue of those of the other; and they bloom with a welcome prodigality from April to December.

Where you want to produce a bold and picturesque effect with a vine, nothing will do it more rapidly and completely than our native grapes. They are precisely adapted to the porch of the farm house, or to cover any building, or part of a building, where expression of strength rather than of delicacy is sought after. Then you will find it easy to smooth away all objections from

the practical soul of the farmer, by offering him a prospect of ten bushels of fine Isabella or Catawba grapes a year, which you, in your innermost heart, do not value half so much as five or ten months of beautiful drapery!

Next to the grape-vine, the boldest and most striking of hardy vines is the Dutchman’s pipe, (*Aristolochia siphon*.) It is a grand twining climber, and will canopy over a large arbor in a short time, and make a shade under it so dense that not a ray of pure sunshine will ever find its way through. Its gigantic, circular leaves, of a rich green, form masses such as delight a painter’s eye,—so broad and effective are they; and as for its flowers, which are about an inch and a half long,—why, they are so like a veritable *meerschau*m—the pipe of a true Dutchman from “Faderland”—that you cannot but laugh outright at the first sight of them. Whether Daphne was truly metamorphosed into the sweet flower that bears her name, as OVID says, we know not; but no one can look at the blossom of the Dutchman’s pipe vine, without being convinced that nature has punished some inveterately lazy Dutch smoker by turning him into a vine, which loves nothing so well as to bask in the warm sunshine, with its hundred pipes, dangling on all sides.

And now, having glanced at the best of the climbers and twiners, properly so called, (all of which need a little training and supporting,) let us take a peep at those climbing shrubs that seize hold of a wall, building, or fence, of themselves, by throwing out their little *rootlets* into the stone or brick wall as they grow up, so that it is as hard to break up any attachments of theirs, when they get fairly established, as it was to part HECTOR and ANDROMACHE. The principal of these are the true Ivy of Europe, the Virginia Creeper, or American Ivy, and the

* The “Chinese twining,” of some gardens.

"Trumpet Creepers," (*Bignonias* or *Tecomas*.)

These are all fine, picturesque vines, not to be surpassed for certain effects by anything else that will grow out of doors in our climate. You must remember, however, that, as they are wedded for life to whatever they cling to, they must not be planted by the sides of wooden cottages, which are to be kept in order by a fresh coat of paint now and then. Other climbers may be taken down, and afterwards tied back to their places; but constant, indissoluble intimacies like these must be let alone. You will therefore always take care to plant them where they can fix themselves permanently on a wall of some kind, or else upon some rough wooden building, where they will not be likely to be disturbed.

Certainly the finest of all this class of climbers is the European Ivy. Such rich masses of glossy, deep green foliage, such fine contrasts of light and shade, and such a wealth of associations, is possessed by no other plant; the Ivy, to which the ghost of all the storied past, alone tells its tale of departed greatness; the confidant of old ruined castles and abbeys; the bosom companion of solitude itself,—

"Deep in your most sequestered bower
Let me at last recline,
Where solitude, mild, modest flower,
Leans on her ivy'd shrine."

True to these instincts, the Ivy does not seem to be naturalized so easily in America as most other foreign vines. We are yet too young—this country of a great future, and a little past.

The richest and most perfect specimen of it that we have seen, in the northern states, is upon the cottage of WASHINGTON IRVING, on the Hudson, near Tarrytown. He, who, as you all know, lingers over the past with a reverence as fond and poetical

as that of a pious Crusader for the walls of Jerusalem—yes, he has completely won the sympathies of the Ivy, even on our own soil, and it has garlanded and decked his antique and quaint cottage, "Sunnyside," till its windows peep out from amid the wealth of its foliage, like the dark eyes of a Spanish señora from a shadowy canopy of dark lace and darker tresses.

The Ivy is the finest of climbers, too, because it is so perfectly *evergreen*. North of New-York it is a little tender, and needs to be sheltered for a few years, (unless it be planted on a north wall, quite out of the reach of the winter sun;) and north of Albany, we think it will not grow at all. But all over the middle states it should be planted and cherished, wherever there is a wall for it to cling to, as the finest of all cottage drapery.

After this plant, comes always our Virginia Creeper, or American Ivy, as it is often called, (*Ampelopsis*.) It grows more rapidly than the Ivy, clings in the same way to wood or stone, and makes rich and beautiful festoons of verdure in summer, dying off in autumn, before the leaves fall, in the finest crimson. Its greatest beauty, on this account, is perhaps seen when it runs up in the centre of a dark cedar, or other evergreen,—exhibiting in October the richest contrast of the two colours. It will grow anywhere, in the coldest situations, and only asks to be planted, to work out its own problem of beauty without further attention. This and the European Ivy are the two climbers, above all others, for the exteriors of our rural stone churches; to which they will give a local interest greater than that of any carving in stone, at a millionth part of the cost.

The common Trumpet Creeper all of you know by heart. It is rather a wild and rambling fellow in its habits; but nothing

is better to cover old outside chimneys, stone out-buildings, and rude walls and fences. The sort with large cup-shaped flowers, (*Tecoma grandiflora*, described in vol. 2d, page 508,) is a most showy and magnificent climber in the middle states, where the winters are moderate, absolutely glowing in July with its thousands of rich orange-red blossoms, like clusters of bright goblets.

We might go on and enumerate dozens more of fine twining shrubs and climbing roses; but that would only defeat our present object, which is not to give you a garden catalogue, but to tell you of half a dozen hardy shrubby vines, which we implore you to make popular; so that wherever we travel, from Maine to St. Louis, we shall see no rural cottages shivering in their chill nudity of bare walls or barer boards, but draped tastefully with something fresh, and green, and graceful: let it be a hop vine if nothing better,—but roses, and wistaria, and honeysuckles, if they can be had. How much this apparently trifling feature, if it could be generally carried out, would alter the face of the whole country, you will not at once be able to believe. What summer foliage is to a naked forest, what rich tufts of ferns are to a rock in a woodland dell, what “hyacinthine locks” are to the goddess of beauty, or wings to an angel, the drapery of climbing plants is, to cottages in the country.

One word or two about vines in the garden and pleasure grounds, before we conclude. How to make *arbors* and *trellises* is no mystery, though you will, no doubt, agree with us, that the less formal and the more rustic the better. But how to manage single specimens of fine climbers, in the lawn or garden, so as to display them to the best advantage, is not quite so clear. Small

fanciful frames are pretty, but soon want repairs; and stakes, though ever so stout, will rot off at the bottom, and blow down in high winds, to your great mortification; and that too, perhaps, when your plant is in its very court dress of bud and blossom.

Now the best mode of treating single vines, when you have not a tree to festoon them upon, is one which many of you will be able to attain easily. It is nothing more than getting from the woods the trunk of a cedar tree, from 10 to 15 feet high, shortening-in all the side branches to within two feet of the trunk, (and still shorter near the top,) and setting it again, as you would a post, two or three feet deep in the ground.*

Cedar is the best; partly because it will last forever, and partly because the regular disposition of its branches forms naturally a fine trellis for the shoots to fasten upon.

Plant your favorite climber, whether rose, wistaria, or honeysuckle, at the foot of this tree. It will soon cover it, from top to bottom, with the finest pyramid of verdure. The young shoots will ramble out on its side branches, and when in full bloom, will hang most gracefully or picturesquely from the ends.

The advantage of this mode is that, once obtained, your support lasts for 50 years; it is so firm that winds do not blow it down; it presents every side to the kindly influences of sun and air, and permits every blossom that opens, to be seen by the admiring spectator. How it looks at first, and afterwards, in a complete state, we have endeavored to give you a faint idea in this little sketch.

“What shall those of us do who have neither cottages nor gardens?—who, in

* We owe this hint to Mr. ALFRED SMITH, of Newport, a most intelligent and successful amateur, in whose garden we first saw fine specimens of this mode of treating climbers.



Fig. 41.—Climbing Plants on Cedar Trunks.

short, are confined to a little front and back yard of a town life, and yet who love vines and climbing plants with all our hearts?"

That is a hard case, truly. But, now we think of it, that ingenious and clever *horticulteur*, Monsieur VAN HOUTTE, of Ghent, has contrived the very thing for you.* Here it is. He calls it a "Trellis Mobile;" and if we mistake not, it will be quite as valuable for the ornament and defence of cities,

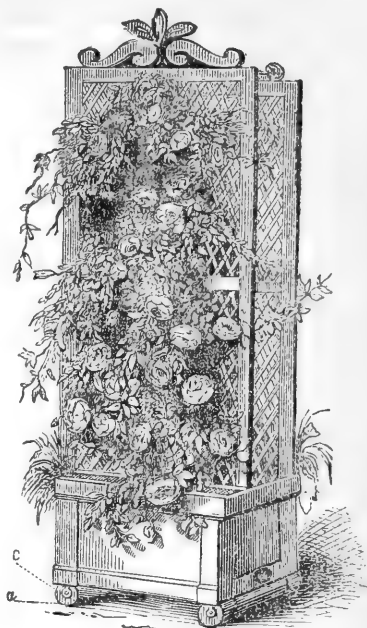
* *Flore des Serres.*

Fig. 42.—Moveable Trellis.

as the *Garde Mobile* of the Parisians. It is nothing more than a good strong wooden box, upon wooden rollers. The box is about three feet long, and the double trellis may be eight or ten feet high. In this box the finer sorts of exotic climbers, such as Passion Flowers, Everblooming Roses, Maurandias, Ipomea Learii, and the like, may be grown with a charming effect. Put upon wheels, as this itinerant bower is, it may be transported, as Mr. VAN HOUTTE says, "wherever fancy dictates, and even into the apartments of the house itself." And here, having fairly escorted you back to your apartments, after our long talk about out-door drapery, we leave you to examine the *Trellis Mobile*, and wish you a good morning.

FLOWERS AND THE FRENCH REVOLUTION.

[TRANSLATED FROM THE REVUE HORTICOLE.]

THERE is a vein of pleasant satire in the following article, so peculiarly French, and so amusingly characteristic of the times on the other side of the Atlantic, that we give the following free translation, for the benefit of those of our readers who have not thought so profoundly as the hero of the story, of the effect of liberty and equality on the rank and beauty of the floral world. ED.

MY DEAR KARR*—I remember you formerly, occupied, above all, with the care of your garden, your budding and grafting, your Roses and your Dahlias. In your leisure hours, between the spade and the pen, after indulging in a reverie before the ocean, you amused yourself by braving it in your little fishing boat.

Now, you are at Paris, encountering another, more terrible sea; a sea which, at this moment, is lashing all its shores, and whose waves are shaking thrones, and causing monarchies to tremble.

You are no longer a horticulturist; but an editor, bravely sharing in the great struggle, and, doubtless, looking back with regret to that delicious garden on the coast, which you hope, by the grace of God and your *matelot*, to find just as you left it. But alas! my friend, the tempest which has agitated France and Europe, may well have overturned gardens also. Old Priapus threatens to become a republican. A serious and important matter, of which, until this moment, I had not dreamed, has been revealed to me. The history is curious enough, and is worth relating. You may take advantage of it to warn those

readers of the *Journal* who, rejoicing in a *parterre*, or even a few simple flower pots, to grace their balcony or window, run the risk, from that single fact, of being taken for bad citizens, or being counted revolutionary horticulturists.

One of my country neighbors is a good and worthy man, of an amiable temperament, but sometimes a little wild, as is the case with all those who are entirely absorbed with one favorite idea.

For some time past, I had only met him at rare intervals; and then he was anxious, morose, absorbed in himself. His door was almost always closed; and if by chance he opened it, it was not until he had carefully inspected, from the window, the appearance of the visitor without. At one time I thought he was engaged in a conspiracy. Conspirators multiply in these times, and they are divided in two categories,—the old and the new; the former are prefects or judges; *the latter*, are arraigned before the old.

My friend was neither prefect nor prisoner. I did not know then in which category to place him, when lately I met him as he was leaving his house, after having doubly locked his door.

"*Parbleu*, neighbor," said I, "what is the meaning of this riddle? You have become completely invisible. Are you making powder, or counterfeiting bank notes? Three times, already, have I presented myself at your door. Your dog alone answered me; but he did not admit me. Seriously, what are you doing? What has become of you? Just this moment you sought to escape me. Are you offended with me?"

"No! *grand Dieu*! quite the contrary,"

* Addressed to M. ALPHONSE KARR, a distinguished French writer.

he replied; "but you know we all have our troubles—our annoyances. What is the use, then, of showing a discontented face? I am uneasy, very uneasy."

"Uneasy, and why?"

"Oh! for many reasons;" and he drew a long sigh. "In these days, there are certain positions, very compromising."

"How! you compromised?"

"I may be so, at any time," said he, lowering his voice; "one indiscreet, or ill-natured person is all that is wanting. But I have perfect confidence in you, my neighbor. You will not betray me; you are incapable of it. And, besides, I need some one to confide in. Listen—when you first accosted me you startled me, I was so absorbed in thought."

"What were you thinking of?"

"Of the DUCHESS OF ORLEANS—of the COUNT OF PARIS—of the DUKE OF JOINVILLE. I repeat it,—my position is very embarrassing, if they remain longer with me."

"What, then, with you!" I exclaimed, in amazement.

"Yes, it is, undoubtedly, very imprudent, is it not?"

You must remember that the events of June were hardly over. In the journals, in conversation, &c., it had been a question frequently, of the rights and wrongs of the pretenders who, it was rumored, kept themselves in Paris, or the environs, ready to take advantage of any fortunate circumstances. Confounded by this disclosure of my simple hearted neighbor, I believed at first that he had given shelter to the three noble persons mentioned, and that the counsels of the regency were actually held at his house.

"Yes, they are there," added he, pointing mysteriously towards his closed door. "They are yet there, until I shall have taken a decisive step in this matter."

"And which side do you mean to take?"

"The wisest would be to give each one a finishing stroke with the spade. But no, no, I should never have the courage to do it! They are so beautiful! and in full flower, *monsieur*! Will you look at them? You are an amateur, I believe."

My common sense here aided me to comprehend what in reality he was talking about. My neighbor is a fanatical horticulturist; one of those insane "collectors," who exist in France, and of which Holland and England have furnished the types.

While I had been recovering from my astonishment, he had opened his gate, which he directly and carefully closed upon us. I soon found myself between a double row of flower-borders, admirably arranged, and carefully labelled. The council of regency consisted of three Dahlias, of superb colour and form.

"If those were the only ones which might compromise me," replied my good neighbor, "I would make the sacrifice—perhaps! But, sir, either in Roses or in Dahlias, do I not possess the whole of the fallen family, from LOUIS PHILIPPE down to his grand-children, the *Duc de Chartres* and the *Comte d'Eu*! See, here is the *Princesse de Joinville*, the *Duc d'Aumale*, the *Duc et la Duchesse de Vernours*, the *Princesse Clémentine*, the *Reine des Belges*,—even the *Duchesse of Mecklenbourg*! All of the choicest, finely formed, entirely double, and without the slightest appearance of a stem! And they want me to give them up!"

"Who dreams of exacting such a sacrifice from you?" said I. "Flowers have in themselves nothing seditious. Their names no longer belong to the order of the day, it is true; but are you responsible for the name they bear? You were not their godfather. They cannot, then, be considered any estimate of your political opinions."

"Political opinions!" replied he, with an almost ferocious air, "I have none! I never had any! I never shall have any! What is the use of politics? To overturn gardens! Have they not already contemplated the proscription of the Lily, the Violet, the Pink? Formerly, the Red and White Roses agitated England, I know; I have heard so; but is that any reason for persecuting those existing now,—the roses of the nineteenth century? What, to me, are all these foolish and miserable quarrels of systems and governments? Let them leave us alone—my flowers and myself! But let them also leave me my flowers *with their names*! I would sooner change my own name than to be obliged to unbaptize them! The authorities, however, will have it so! They have might on their side! There will be a law to that effect, you will see! It is easy enough to make a law. It is not so easy to make catalogues, however! But revolutions respect nothing!"

I tried to quiet him. "My good neighbor," said I, "well, let us see, when it becomes necessary, to change some of your labels,—will that be so great a misfortune?"

"How," said he, "some, all sir, or almost all? It is a slight thing to attack one family. Have they not overturned royalty itself? Just look at this collection of Roses, almost all regal, and consequently proscribed. Here is *la Reine des Cent feuilles*, *la Reine des perpetuelles*, *la Reine de la Guillotine*, *la Rose Royale*, *le Caruim Royale*, *la Rose du Roi*, *l'Impératrice de France*! There is no escaping it! But it was not enough to attack a single family, and royalty itself! Your innovators also have suppressed the nobility! and how many of our Roses are either countesses or baronesses? Even marchionesses! *La Comtesse Duchâtel*, *la Comtesse Lacépède*, *la Marquise Tur-*

got, *la Barronne Carruel*, *la Barronne Dupuytren*! and as many more! But do you think, sir, that the proscription will stop here? No, no, do not deceive yourself. Napoleon himself will not escape. *Napoleon le Grand*!—a magnificent Fuchsia. Among the Fritillaires, have we not *la Couronne Impériale*; among the Narcissus, *le Grand Monarque*; and the Tulips, *Monsieur*, the Tulips! almost all belong to the nobility, and are titled personages,—to begin with the *Duc de Thol*. I repeat to you, it is re-creating a whole world! and who will charge themselves with it? Not I! I tell you, your representatives of the people would do better to suppress, at one blow, all the flowers! And they call that a constitutional assembly! "But let them beware," added he, with a voice full of vehemence; "plants have their rights also! Those who love them and cultivate them, have done more for humanity than all your legislators — past and present. That man who first cultivated a grain of corn, endowed the world with an inexhaustible treasure. Tea, coffee, sugar-cane,—have they not made the fortune of several continents? For the sake of those plants which have created so much wealth, let them respect those which only bestow happiness! They are all connected together. Besides, how do you know that the most humble will not, some day, become the most useful? The *Monarde Rouge*, (sweet balm,) at first gathered as a simple ornamental flower, was once very near disputing the ground with Tea itself, and disinheriting China to the advantage of Pennsylvania, its native land. Perhaps the roots of the Dahlia, now become edible, will replace, advantageously, those of the Potato, which is dying out and disappearing—like all the kings! But to attack their nomenclature, is to undermine science, and to stab to the heart

those who are occupied with it! It is odious! It is a scandal! It is a tyranny!"

I saw that he was much excited, and, consequently, little disposed to listen to reason. Nevertheless, I attempted again to treat his fears as imaginary.

"No," said I, "be assured the Republic will respect the heraldry of flowers." But, not succeeding in convincing him, I adroitly changed the topic; and after having spoken of the rain, and the fine weather, I know not how, my thoughts transported me, all at once, into Algiers, where I endeavored to force my friend to accompany me. I occupied him with colonization, ABD-EL-KADER, the Kabyles, the great deeds of our soldiers and their brave commanders, which naturally led me to mention General CAVAIGNAC, Gen. LAMORICIERE, and Gen. BUGEAUD.

My neighbor seemed to grant me only a doubtful attention; he murmured between his teeth, darting the most ferocious looks towards his flower borders. At the mention of the last name, however, he raised his head.

"*Marshal Bugeaud!* Do you know him?" asked he. "I have not the honor. He is one of our finest Roses, *monsieur.*"

"How, Marshal BUGEAUD, a Rose?"

"Yes, a Tea Rose,—superb; whose name, of course, it will be necessary to change!" added he, with another sigh. "He is not in favor just now."

"You are needlessly alarmed, dear neighbor," said I. "The Republic will not repudiate any of the glories of France. * * But, pardon me, I hardly believed that a Rose could have the name of a man."

"Why not? Flowers are of no sex; at least, the double ones. It is an undisputed truth in botany. See here, just beside *Marshal Bugeaud*, are *M. Theirs*, *M. Victor Hugo*, *M. de Lamartine*"—

"You have a glorious collection," I said, examining them.

"It is tolerably complete, thank you. But you cannot judge of *M. de Lamartine*, just now; he has suffered. * * * * He is a little cast down—out of flower just now; but he will rise again! He is one of the *perpetuals*—(*c'est une remontante.*)"

I fancied he was making a touching allusion to the great poet; and immediately seizing the hand of the excellent old man, I pressed it warmly. He looked at me with a confused air. The dear neighbor had no finesse, and spoke as a simple, *naïf* horticulturist.

"*M. Theirs*, *M. Victor Hugo*, *M. de Lamartine*," rejoined he, "still political Roses! Names that I shall be again obliged to change some day, if the contrary party should triumph. You see the horticultural nomenclature is threatened with a complete overturning, and this nomenclature is science itself. Consult the professors. I comprehend that a change of government brings some modifications in the names of certain streets, of certain places. That the street *Royale* is named street of the *Republic*, I agree readily; that the *Place Royale* should be called *Place des Vosges*, if they wish it, I will not oppose it. These places may still be recognized by their outward appearance and circumstances. We shall say, the *Place des Vosges*, in the *Marais*, at the end of the street *Saint Louis*, if they will leave even *Saint Louis* in repose. And, for those persons who do not easily become familiar with new names, they may say, the street of the *Republic*, near the *Place Louis XV.*, or, that of *La Concorde*, or, of the *Revolution*, as you will! But when I wish to designate the *Rose Royal*, or the *Reine des Pimprenelles*, is it becoming to say *La Rose des Vosges*, or *La République des Pim-*

prenelles? I ask you, is it not nonsense? Besides, I cannot, as in speaking of a public square or a street, resort to the expedient of using circumlocutions to indicate the route which leads to it. And if, from the vegetable kingdom, we ascend to the animal, do we not here still find something to change. I see at once the *Royal Tiger*, the *Royal Eagle*! Will you say *l'Aigle des Vosges*, *le Tigre de la Republique*? A double absurdity! There are no eagles among the Vosgers, *monsieur*; and if the Republic produces tigers she had better not boast of it. And the lion, the king of animals, will you proceed to make him *first consul* or *president* of the animals? Another folly! You see plainly it is absurd; it is odious! Let each one retain his name in the menagerie, as in the garden, for *j'en reviens à mes moutons*, that is, to my Dah-

lias and my Roses! I assert that a change of nomenclature, then, would produce disorder, confusion and chaos. I intend to address a petition to the Chamber; and if the representatives do not grant its rights, if the government persists in this revolutionary measure,—very well! The *Bon Jardinier** will not appear next year, and then we shall see!"

I left my good neighbor to digest his petition, which, I believe, will not be more ridiculous than many others. But, in the mean time, while the question is preparing for the National Assembly, it seems to me there is for you, my friend, the thread of a curious chapter to put in your *Guêpes*. You may entitle it—"ON THE INFLUENCE OF DEMOCRATIC REVOLUTIONS, ON DAHLIAS AND OTHER ORNAMENTAL FLOWERS."

X. B. SAINTINE.

GRAPE CULTURE IN THE VINERY.

BY GEORGE GABRIEL, NEW-HAVEN.

A. J. DOWNING, ESQ.—*Dear Sir*: I suppose sufficient has been written, from time to time, on the cultivation of the vine, under glass structures, for all practical purposes, and to enable any one to make the attempt without any apprehension as to the result. Indeed, from the success that has attended my own limited experience, the difficulties and mysteries that appeared to hang like a cloud about graperies, have entirely vanished.

It is true, that labor and attention are necessary. Pomona does not yield her favors profusely in any department, without receiving some kind attentions. Yet, the gratification of cultivating, and the luxury of enjoying this delicious fruit, might be greatly extended; and would be, I think,

were there a more general diffusion of intelligence in relation to its cultivation. It appears to me, now, perfectly simple and easy.

The testimony of any successful cultivator, in relation to any fruit or plant that has been supposed to be attended by difficulties in its culture, may encourage others to engage in it. This is the motive I have in addressing you.

My attention has been given, more or less, to horticultural pursuits, or, rather, horticultural pleasures, for some ten years past; and nothing has afforded me more satisfaction, than the success that has attended the cultivation of twelve or fourteen

* The standard French gardening work; a new edition of which appears annually.

foreign varieties of grapes, in a small cold-house grapery.

With your indulgence, I will give a brief, general account, from the beginning, for the benefit of any interested in this subject. And I will state here, that I am indebted to the *Horticulturist*, Hovey's Magazine, and a *Treatise on the Culture of the Grape*, by J. F. Allen, of Salem, Mass., for all the information I needed, in order to the successful and gratifying results which have attended my labors thus far.

In the first place, I made in the autumn of 1846, a *good border*. This is considered indispensable; and without which, it would be just as useless to plant vines as it is to plant fruit trees in the way they often are, and where the product is only disappointment. Our ground is light and sandy. I dug from two and a half to three feet deep, removed the subsoil and sand, and filled in with a pretty large variety,—such as broken brick, old mortar, turf sods, oyster shells, leather parings from a shoe shop and tannery, bones, compost of peat muck and manure, soil, &c., well mixed together. Not much precaution being necessary in regard to drainage, as there would be on a heavy wet bottom.

During the winter the house was built; a particular description of which is unnecessary, as several have been described in your valuable journal. The mode of ventilating, however, is somewhat different from any I have seen described, and which I think favorably of. I will go far enough to give an idea of this part; it being an important one in warm weather.

The house stands against a high, tight board fence, and is about ten feet high. The back wall and ends are of plank, one and a half inch thick—matched. The space between the house and fence is made tight; and is so far double, and has af-

forded all the protection that appears to be needed.

The top sashes are *stationary*. The front sashes are about two and a half feet long, that is, up and down, hung with butts at top, and swing outward. Whole height of front wall is three feet eight inches. From the top or apex of the house is a slope, of about two feet, to the back wall, half of which is open the whole length of the building next the top. This is the part I wish to notice. The rafters here are six feet apart, which leaves openings of nearly six feet in length, and one wide. These openings are covered with doors, hung with butts, which open upward, and back against a balustrade. They are opened and closed by hooks, about three feet long, made of large wire, by which they are also fastened when closed, if need be.

Thus, the draft of air is directly under the top sash, and in contact with the vines. These and the front sashes, together with a glass door at one end, and a window, hung to swing open at the other, afford very complete ventilation.

I procured vines two years old in pots, during the winter, and planted them out on the 12th of April, 1847, previously cutting them back to two or three eyes, trained the best shoots and pinched off the others. I planted just outside the grapery, and near the surface,—covering the roots from two to four inches only, and mulched when the weather became warm. This is of great service, I think, to newly planted vines or trees. The vines received some attention almost daily through the season, and made rapid growth,—measuring two inches in circumference in the fall. They were not over three-sixteenths when set out. Took them from the trellis in November, and cut them back to two and three feet, expecting some fruit the next season, in which I was

not disappointed. Laid them down first of December, near the front wall, inside, and covered with leaves and other litter. I also covered the border outside with the like, to protect the roots.

April 5th, 1848, I uncovered the vines, and found them in good condition. Kept them in a horizontal position, near the ground, till the buds broke, and till some had grown several inches and showed fruit buds. Syringed them every fair day, while in this position, and kept the earth damp around them. First of May, tied them to the trellis. The vines showed more fruit than they would probably have been able to mature. Left from two to five bunches only on each. During the summer I did not syringe the foliage, but watered the floor of the house frequently in clear weather, to create a damp atmosphere.

In training and trimming the vines, thinning the fruit, &c., I have been guided by the works before alluded to, in which are ample directions. In regard, however, to allowing the vines not to bear till they are several years old, I have not followed the directions generally prescribed. It appears to me the condition of the vines and other circumstances should determine that point.

From the eight vines that bore, (the others were set out later,) I had twenty-seven bunches, well ripened fruit,—large and handsome; at the same time, large and well ripened wood. This year's growth measuring two and three-fourths inches in circumference.

The varieties were White and Black Hamburgh, Royal Muscadine, White Frontignan, White Muscat of Alexandria, and Zinfindal. This last bore three bunches nearly a foot in length, with shoulders two-thirds as long as the main bunch.

Thus, you see, that in the short period

of less than eighteen months from the time of planting the vines, I obtained most beautiful fruit, and in greater quantity than would be expected of any other kind, under any sort of treatment that I know of.

Mildew attacked the vines slightly in July, which I prevented the spreading of by syringing them with a preparation recommended by Mr. Russell, in Hovey's Magazine, vol. 12, page 391. The same receipt is on page 40, Allen's Treatise. To destroy the vine-hopper, (a very injurious insect,) I closed the house and fumigated with smoke of tobacco. This is one of the advantages of a house. Not only the temperature can be regulated to suit the vines, but the insects can be *regulated* too. This insect has injured my out-of-door vines very much, in years past; and it is no small comfort to be able to put a stop to its destructive propensities in about ten minutes' time. It can be destroyed in the same way out doors, it is said,* by throwing a sort of tent over the vine or trellis, to prevent the escape of insect or smoke. Morning—early—or a damp day is the best time.

I will add, that I tried vines in pots during the same time, with perfect success. A Black Hamburgh, potted last year, bore nine bunches. The fruit was not quite so well coloured as that on the vines in the ground, but was very fine. I also tried an Isabella in pot, as an experiment, giving it the same treatment in training and feeding as the Hamburgh. It bore ten bunches, ripened well, was high flavored, not so large as out-door fruit; berry more oval. [Is not worth the trouble in a grapery.]

I had, in addition, two Isabella vines, trained on the back wall of the grapery, which were planted out several years before it was built. I allowed them to re-

* Dr. Harris's Entomology, page 185.

main, in order to ascertain how they would do under glass. They have borne two seasons. The fruit was good, but smaller than that out of doors, and the shape more oval. I am satisfied that such protection

will not improve the Isabella, and have accordingly had them taken up and given to my neighbor who had none. Very respectfully,
G. GABRIEL.

New-Haven, Ct., Nov. 25, 1843.

NOTES ON PEAR BLIGHT ON THE MISSISSIPPI.

BY E. MALLINCKROTT, ST. LOUIS.

HAVING been a subscriber to your valuable journal from its beginning, there were no articles which I read and studied with more interest and anxiety than those on the pear blight; for I had much at stake.

Nine years ago I imported from Germany, Belgium, and France, among many other valuable fruits, about 80 varieties, and from all parts of the Union about 60 more of the choicest pear trees known, which I planted in the immediate vicinity of St. Louis, on a new and excellent piece of light rich loamy soil, where they grew for seven years with a uniform soundness, luxuriance and rapidity, to me before unknown, even in the finest European pear countries. Already did I pride myself in the vanity of my heart, when I saw and heard of other blighted orchards, that mine would escape on account of the superior care and pains I took, or imagined myself to take, with my favorite children—the pear trees. But alas, for all human hopes and calculations! I am humbled with bitter disappointment now; and my neighbors, whose previous loss I partly ascribed to less care, have their full and just retaliation upon me.

Last year, in the spring, I discovered, for the first time, that a few of my favorite trees became infected with the dreaded blight. Although I lopped off immediately the injured parts, it did not at all stop the

progress of the disease; they speedily died from the tops downward, to the roots. I consoled myself as well as I could with this loss of a few trees, in the hope of the great numbers I had, whose soundness hardly admitted the thought of an entire loss. Last spring came in, after a mild winter, and behold! among 300 pear, apple and quince trees, the blight spread over almost every tree alike, and made its first general appearance as early as the middle of April, after the following manner: You first observe the young shoots, which have started from the terminal bud of the previous fall, suddenly wither. Wherever this is the case, you find a cavity in the centre of said terminal buds, evidently eat out by an insect, which itself, however, you never discover; for by the time the shoot wilts, it is already gone; as you frequently discover a small black point on the side of the bud, where it has most probably made its exit in the larva state, tumbled on the ground, wherein it perfects itself into a black insect of the size of a flea, the larva of which must be very diminutive, and the egg of which is doubtless deposited in the bud the previous fall; whereupon said larva grows during the first warm days in spring by feeding upon the sap and marrow of the young shoot. But after the bug is perfected, it spreads over every part of the tree, and feeds upon the sap, until the

end of the summer. The effect upon trees so injured is distressing. It is always fatal to the pear tree. Young ones die the first season so attacked, while aged trees perish within two or three years after by degrees; but die *they must*.

Now for the result of my own orchard: All my pear trees, but five, are now dead. The quince trees are dying. Of the apple trees, a dozen dead, and the balance badly injured; but these will likely recover. Wherever trees are thus attacked, they appear to be poisoned,—the sap oozing out gluey and vitiated; the bark shrivels, becomes dry and black, as, also, the wood, until it spreads down to the root, when the whole tree is overcome. The injured parts emit a bad, offensive odor; in fine, mortification takes place, with precisely the same symptoms as in animal bodies. The least sting of the insect introduces rank poison; especially upon the pear tree, constitutionally more tender than the apple, and being carried, in a short time, with the descending sap into the vitality of the plant, it perished like the animal, bit by a venomous snake. I am not positive that the described bug is the very insect to whom I impute the mischief; but it is more than probable. During last spring and summer, while the injury was doing, those trees were covered with that bug; and late in the fall I found about 50 of them in mummy state, fixed with their backs, and put up in a regular circle, upon a ripe pear, and a fine and close web spun over them.

A singular feature of this disease is also the fact, clearly established by Captain LEWIS BISSELL, before the Horticultural Society of St. Louis, last summer, that it is communicated to healthy trees by contact, by using a knife upon them, drawn previously through an affected limb, which produced the same disease within two weeks

after application,—starting from the incised spot, and showing the great virulence of the poison. The same gentleman has an old pear orchard in this vicinity of 25 years standing, which stood for about 20 years all theories of frozen-sap-blight, and the hot western sun, in practice, without injury, until about six years ago, the described insect made its first appearance in these parts, whence it also attacked this orchard in the same manner—with the same result. Previous to that time, the disease was almost unknown here, although we heard of it occasionally from the more eastern states. An old gentleman from Kentucky, who was 90 years old, told me often, that in the interior of that state there were the finest pear orchards, 50 years ago, where now not a tree would be found in a circuit of 50 miles; they were in modern times killed by blight, and his description of which corresponded exactly with our insect-blight. It is certainly migratory. It has come from the east, and is going westward. It formerly could not exist here, before there were those fruit trees raised; for it does not feed upon oak and maple. Our low and narrow gorges and valleys, along cold spring water courses, and between hills, are measurably exempt from this plague,—showing that the insect is averse to cold, and will hardly go far north of this. Is it on this account that our New-England friends, and those in the vicinity of the lakes, raise such varieties of fine pears with impunity?

The theory of the sun-blight is, probably, in effect, nothing else but the above disease. Although the branches wither in the sun, the sun is not the cause; for every plant, as well as animal, has a temperature of its own, which is nearly alike in summer as winter. The foliage of plants are their lungs, which regulate the heat of the at-

mosphere within the plant to suit its economy; as, also, the leafless trunk in winter retains its specific warmth within it, as any one may try, by putting a thermometer into the sugar maple sap, when, after boring, it runs out. While the air without is at the freezing point, the sap will show 6 and 8° higher temperature than the air, even on a cloudy day, when the sun can have had no effect on the trunk. And does not the growing foliage of plants feel cool, while exposed to the hottest sun? Or is there ever a tree cut down, in the hardest cold of winter, whose sap or wood is frozen hard? But no sooner is it laid low, and deprived thereby of life, when it freezes as hard as bone. [What does our correspondent think of hardy trees, which *do* freeze? Ed.] Frost-blight of pear, apple and peach trees, I have experienced here but once in eight years; and that was caused, in November, by the extremest winter cold, when the foliage had scarcely fallen,—consequently, the sap yet in active motion; and then we lost but a few small trees, which were chilled to the heart. All those that were the size of a wrist and over recovered, though the bark of many peeled off the succeeding summer; it became renovated. But it was, after all, not as much pear as apple frost-blight; for these suffered the most. The idea, then, of a sound pear tree, or its branches, covered with fresh, green foliage, withering, and dying suddenly of a sun-stroke, is a theory which can hardly be seriously entertained by anybody. This sun-blight was, most probably, nothing more or less than the above described insect-blight, which, as we have seen, affects apple, quince, and even all cultivated thorns alike.

Who next, then, will name and describe this insect and its economy, with a view to its destruction? He—whoever he be—

will deserve the thanks of a whole nation! From the diminutiveness of the bug, I could not discover whether it is winged or not. Certain it is, that I never saw it fly, but crawl up and down the branches. At any rate, it might be partially destroyed by planting pear trees in a stock yard, where the larva, if my suggestion is correct, would be killed after falling on the ground. To invite farther inquiry on this subject, and to contribute my mite towards it, are the motives for sending you this article.*

By-the-bye, I am surprised, that among the select fruits of your late convention, the Geniton apple [Rawle's Jenet,] is not enumerated. Here, in the western states, you might seek in vain for its equal in all good qualities. It is an early, sure, and abundant bearer, and the fruit in good eating and keeping from Christmas to July following; and what a choice fruit it is!—so vinous, so juicy and brittle, with a most pleasant flavor. In fact, I have never yet seen an apple, in Europe or America, which I valued so highly, considering all its good qualities together. Does it not thrive with you? Perhaps your summers are not hot enough to perfect it, as it is the latest fruit I know of. While some fruits and plants have the property to adapt themselves to most any situations, there are others which are extremely sensible of change. My best European winter apples are summer fruit here, and comparatively worthless. So are many of your best New-England apples. The middle portions of the great west produce the finer apples, peaches, and native grapes well. The Catawba produces here a good wine, which favorably compares with the second rate French wines. It is quite probable that in 50 years, the state of Missouri may raise table wine enough for

* If our correspondent will send us specimens of the insect by mail, we will endeavor to ascertain whether he is correct about its causing the blight. Ed.

the consumption of the whole Union. But of all the foreign vines, of which I brought a great many from the Rhine, my native country, not one will ever do any good here. A Burgundy vine, we have, however, from France, which has succeeded well, and will make an excellent claret. Sour cherries, as the Morello, Kentish, and Montmorency, thrive very well; but the May Duke, White and Black Hearts, are

difficult to raise. Foreign plums, prunes and gooseberries, will never thrive in the middle states; they require a more northern climate, though our woods and prairies are covered with native ones,—producing abundance of fruit. These we should improve, of which they are certainly susceptible. Most respectfully yours,

EMIT MALLINCKROTT.

St. Louis, December, 1848.

HINTS ON WINDOW GARDENING.

BY ROBERT SCOTT, PHILADELPHIA.

PERHAPS a few remarks on this subject may not be uninteresting, especially to the fair portion of the readers of the *Horticulturist*, for whom these hints are principally intended.

In the December number, you have done ample justice to the green-house; and to all who can carry out your judicious and practical directions in erecting, heating it, and making the selection of plants indicated, cannot fail of success. But there are many who have not that convenience, who are, nevertheless, equally fond of flowers, who spend considerable sums yearly in purchasing plants, and bestow a great deal of pains in attending to them. It is not to be denied, too, that after all their endeavors, their plants often look sickly, and finally die. The blame is often laid at the door of the florist who supplied them, for not giving them healthy plants, when in almost every instance the fault lies with the buyers. The plants, it is true, which come into the market, and purchased from their respective florists, have generally been under a high state of cultivation; they have been regularly watered, potted in soil, ac-

cording to their different habits, and grown in pots according to their size. The heat, air, and light have all been arranged and regulated, as the utmost skill and experience could suggest.

The transition from all this regularity to the tender mercies of the purchaser is soon felt. Drowning, or starving, or neglecting altogether, is no uncommon fate. The pots are taken home, put into pans or saucers, deluged with water, and the water left in the saucers; or they are set in some conspicuous place, and left to their fate. In the first case, the leaves turn yellow and drop, the flowers fall, and in a very short time all that can be seen of them is their naked stems, with little tufts of green on the tops or points of the shoots, which a few days before were in perfection. In the latter case, the plants die with all the leaves and bloom upon them. Nearly all the evils attending plants grown in windows, are to be traced to these two causes. I will, therefore, attempt to lay down a few general rules which, if properly attended to, will do away with nearly all the complaints under this head.

1st. Never to water but when the plants actually want it. That is easily known by feeling the soil with the finger. While it is moist, no water is needed. When it feels dry, then water; which latter will not be oftener than three times a week in autumn and winter, and every day in spring and summer,—giving it *copiously* every time, and allowing it to run away entirely from the plant, so that the pots may never stand in it. The water used should be either rain or river water. If necessarily from the pump or spring, it ought to stand in the air a day or two before using.

2d. To give plenty of air at every possible opportunity, *when the weather is mild*, either by having the window up, or by removing the plants outside. If, in warm weather, this is done under a burning sun, the pots will have to be shaded, as the sun upon the sides of pots would prove injurious to the young roots, and would greatly injure the plant; and if in bloom and exposed to the sun, the flowers would soon fade and drop.

3d. To keep the rooms where the plants are of as uniform a temperature as possible, and the plants themselves as near the window as convenient, except in severe weather, when they are better near the middle of the room during the night.

4th. To examine them occasionally, to see if the pots are full of roots. If this is the case, and the plants are worth it, to get some good soil,* and shift them into pots a size larger; or, if not shifted, to be more careful in supplying water, as they will require more when in this state. In summer, to water them frequently over the foliage, but not except they also need it at the root as well.

These may be adopted as very general rules, though more absolutely necessary to some plants than others, but very good to all.

There is a good deal to be considered in buying plants, in making the proper choice; for however gratifying it may be to have those which look best in full bloom, it is most satisfactory to have those which last longest in perfection,—especially those which have a succession of bloom, and *whose foliage is interesting when the bloom is gone*. This rule may be deviated from in behalf of Tulips, Crocus, Hyacinths, and other *bulbs* which are valuable, when little else is in flower. These will also bloom in the darkest streets of our cities. They ought to be purchased either in the beginning of November, when the roots are dry for planting yourselves, or in pots, when they are beginning to grow; for if delayed till they are in bloom, nine-tenths of their value is lost, because they are interesting in every stage of their growth, from the first formation of the leaves to the perfection of the flower. Every day of development has its charm, and therefore they ought to be possessed from the first. All these require a plentiful supply of water when in a growing state; and if kept cool after showing flower, their season of blooming is prolonged.

ROBT SCOTT.

Philadelphia, December 15, 1848.

[We may add to the excellent remarks of Mr. Scott, (who is foreman in the exotic establishment of Mr. Buist,) that a principal cause of the sudden decline in the health of young and tender plants, taken from the green-houses of the florist to the private parlor, is the great *atmospheric change*. In the green-house they have been, all their previous lives, accustomed to an atmosphere exceedingly damp; and

* At another time, (if you think the subject worth notice,) I will say a little about the proper soil, and the culture of a few plants best adapted for the window. [We shall be glad to receive further remarks on this subject. Ed.]

when taken from thence to the parched-up atmosphere of a room, heated with anthracite, they feel almost like a "fish out of water." To prevent this shock to the health of the plants, they ought, for a fortnight or more after they are brought home, to be turned on their sides, (so as to prevent saturating the soil in the pots,) and thoroughly sprinkled or syringed with lukewarm water every other day. Ed.]

THE MORALE OF RURAL LIFE

BY GEO. JAKES, WORCESTER, MASS.

THE idea of modern patriotism seems doomed to an association with the gleam of bayonets and the sullen trundling of cannon wheels.

It is a sad thought that patriotism, one of the noblest sentiments of the human heart, must ever wear her garments dripping with blood. And deeper yet the shade of sadness, to see *the* noblest of all earthly employments almost banished from the paths of learning and refinement, spurned by "exclusives," and compelled to an obscure toiling for the supply of mere animal wants, until the earth claims back her own again. Is there nothing of the patriotic in the hard, honest hand that guides the peace-loving plough, cultivating and improving the soil of that country which chivalry boasts herself so ready to defend? What insignificance or indignity attaches to this kind of labor, which, if discontinued only a few months, would stop the whole machine of civilized life? And what element of the contemptible does the eye of modern Christianity discover in the task which the Almighty himself assigned to his own first created image.

The opinions of men may be wrong. Patriotism may yet weary in the search for a more genial home elsewhere, than in the breast of him who wears his *own* blue frock, and not another's broadcloth; who chooses hobbling cowhide, with honesty, rather

than French calfskin, and cheating; and the sweat of digging, rather than the shame of begging!

Indeed! And is agricultural life a fit employment only for him who has *no tact*—heaven save the meaning—no tact for other pursuits? Why, the successful conducting of a large farm requires more *honest tact* than all other kinds of business combined! It applies itself to the management of men, and of animals, and of the soil supporting them. One kind of treatment is for this field, this crop, this forest, this animal, this garden, or orchard, or tree, while an altogether different regimen is requisite elsewhere. And difficult questions must be solved. What product will repay the toiling hand of labor with best reward? What may be safely invested in improvements? What may be indulged to fancy or to taste?

Agriculture, in its comprehensive acceptance, is, also, the name of a science, whose vast fields of research are still almost an unknown wilderness. Wise men are still groping their way along its borders. Within a few years, indeed, they have just began to learn something of the simpler elements of the science, the improvement of breeds of animals, the causes of vegetable growth and disease, the chemistry of manures, and something also of the effects of different soils and subsoils, of climate

aspect, elevation and the like. But far extending around these lies an almost illimitable country, every rood of which the longest lifetime could not suffice perfectly to explore.

Again, agriculture, having the twofold nature of other sciences, is an art, and the most essential of all arts. It is the criterion of civilization everywhere upon the habitable globe.

There are savage wilds, where beasts of prey and barbarous men struggle for uncertain supremacy. There are cities where the children of artificial life, learning, ignorance, luxury, want, virtue and vice, breathe the same close atmosphere, wonder at each other's envy, annoy each other's lives, and gladly dig each other's graves! And between those wilds and cities, agriculture extends her broad fields as a perpetual barrier; while her sons go forth now to hold up the light of learning and religion to the benighted child of the wilderness, and now to supplant, with their iron energy, the effeminate offspring of city life, or to oppose their physical hardihood against an invading foe.

Agriculture, politically viewed, is of the highest order of occupations. The source of a nation's strength, wealth, prosperity, and of the consideration which she receives abroad, it is indeed the only solid industrial foundation upon which national greatness can safely rest. For what stronger pillar of national independence than the product of a nation's own soil, improved by her own labor?

And this pursuit has moral and religious bearings. Listen to Jefferson: "Those who labor in the earth are the chosen people of God, whose breasts he has made his peculiar deposit for substantial and genuine virtue." If such be the teachings of philosophy, what higher commendation might

not come from the farther-reaching observation of Christianity?

This primeval employment of man presents still other claims. It is the most healthful of all occupations; healthful for the body, the mind, and the soul. What other pursuit, by which men obtain honest bread, affords such vigorous training for the physical powers, such various and extensive ranges of mental exercises?

And where may the moral nature of man be preserved unsullied from vice, and grow and expand more than amid rural scenes, and beneath the purest air of heaven?

The farmer's life is not scratch, scratch, with the pen—rap, rap, with the hammer—nor an everlasting unpacking and re-packing of the product of another's labor. He walks forth under the open sky, his broad acres spread out beneath his feet; the blue concave, sunlit or starlit, or shrouded in clouds, is still above him. Health claims him as her favorite child, and the glorious sun loves to kiss a cheek that is not ashamed to wear the ruddy imprint of such affection. Nature's own inimitable music of babbling brooks, birds, breeze, or rustling foliage, enters his ear on its glad mission to his heart. He listens to instructive voices, continually speaking from the universe around him. His eye gathers truth from unwritten pages of wisdom, everywhere open before him. Each day, each month, season after season, year after year, these teachings are given to him, infinite in variety, and endless in extent.

When toward the close of a sultry day the summer's blessing comes pouring down, and as in the beautiful poetry of the sacred volume,—“the trees of the field clap their hands,” and “the valleys, covered over with corn, shout for joy,” the farmer, retiring from his labors to the friendly shelter of his cottage-roof, improves his leisure hours with

the treasures of written wisdom. So, too, while his fields are sleeping beneath frost and snow, what profession affords more available opportunities for self-culture? Nothing can be more false than the idea of some, that the hard hand of rural industry, and the refinement of a cultivated mind, are incompatible with each other. Where was the lyric poetry composed, that makes Scotland prouder of her Burns than of all her ancient race of warlike kings? Was it not between the handles of the Mossgeil plough?

Of all the employments that busy men, here in this present state of existence, the cultivation of the earth is distinguished, as affording the best opportunities for an extended range of mental discipline, for advancing in true refinement, for social, rural and religious improvement!

Whatever we have thus far said, should be regarded as merely the enunciation of propositions, and sufficient for the subject of a volume.

And now, last of all, agriculture shall put forth her highest claim. Of all men, the farmer alone walks in the path where

God himself first took the created image by the hand, and led the way "to dress and to keep" his garden—the earth! Confiding in God, the husbandman ploughs his fruitful fields, while the birds of spring are singing praises around him. Buoyant with hope, he scatters the seed upon the ground, and gratefully receives the early and the latter rain, coming down from heaven to give the increase. And never did rational man yet apply the sickle to the golden grain, without some vague idea of gratitude to God, the giver of harvests!

Indeed, the husbandman's whole life, rightly viewed, is a "walking with God." And though thousands may not often think of this, and but a few, even in any small degree, appreciate it as they ought, nevertheless the assertion claims to be true.

If there be anything in what we have written, it will not be denied that the humblest efforts to elevate the character, and to increase the self-respect, of those who cultivate the earth, are efforts which must ever rank high among the loftiest deeds of patriotism.

GEORGE JAKUES.

Worcester, Mass., Dec. 6, 1848.

NOTES ON THE HARDINESS OF THE CAMELLIA.

BY JAMES RITCHIE, PHILADELPHIA.

I SEE, in your January number, a notice, taken from the *Gardeners' Chronicle*, regarding the hardiness of the Camellia.

In reading this notice, it occurred to me that many growers in the eastern states, are ignorant of the hardiness of the Camellia; and I offer you some little of my experience as to the extent of frost they will bear without injury. Having been a grower of Camellias to a considerable extent, for the

last twelve years, I may be able to lay some few facts of interest before your numerous readers.

Camellias are grown (in the northern states) in pots or tubs, and kept in the greenhouse at a heat of from 35° to 55°, (Fahrenheit thermometer,) and even as high as 60°, according to the wish of the grower, for the purpose of opening their flowers in early winter. At that season, when other flowers

are not so easily procured, the Camellia and Daphne give the green-house or conservatory a rich and gay appearance; almost making us forget the dreary season without.

As the Camellia accommodates itself easily to a high or low temperature, it answers the purposes of the gardener admirably. To have Camellias bloom early, the manner of forcing them is different from any other plants in cultivation,—such as the Rose, Geranium, Heliotrope, Verberna, Primrose, Cactus, &c. As these buds are produced on young shoots, you give them heat for a few weeks before you require the flowers. Not so with the Camellia. To have an abundance of flowers from it in December, it is necessary for them to have made their growth in March or April previous, so that their flower buds, (which are all set eight or nine months before they open,) may be showing themselves in June. With such plants, and with a house kept at 45° to 55° in winter, you will have abundance of flowers in the December following, and may continue this habit of early blooming every year, without injury to the plants. This is truly making the Camellia a green-house plant.

Let us see if it can be made a hardy plant with us, in the U. S. According to your remarks, it can be used as a hardy plant in most of the southern states. Here, in Philadelphia, it is certainly impracticable. The foreign notice, in your magazine, says the Camellia lives out of doors in some parts of England without protection, through very severe winters, and retains the most robust health.

In the hard winter of 1837–8, it bore there, without shelter, a temperature of 0° Fahrenheit, or 32° of frost. We do not doubt the assertion, although it does not say whether the plant was injured or not. That same winter, in the Horticultural Gar-

dens at London, the writer says Camellias stood in 4-inch brick pits,—the glass having only a covering of mats; one of them, the *Camellia reticulata*, occupies the same place it did then, and no plant can possibly be in higher health, or flower more gloriously. As it occupies the same place, we presume it is planted in the pit, which accounts for it doing so well.

The Camellia is a plant, with the culture and management of which, although simple, few amateurs, and not a great many gardeners, are thoroughly acquainted. It is usually considered, here, a tender green-house plant, which, should it be exposed to one or two degrees below the freezing point, the flower buds will not open. So that the whole beauty and profit of the plant is lost; and should six, or even four degrees of frost get into the house, they would be considered worthless, or, in reality, dead. This opinion is, indeed, quite true with some varieties, while other varieties or species would not be injured in the smallest degree, even in their flowering.

This is a rather strange assertion; but no more strange than true. It is to be understood that the Camellia is not hardy in the middle states, although it withstands an English winter. Our sun is so powerful in winter, causing sudden thawing after frost, that even a number of our native or naturalized trees are frequently injured, even in winters that we have considered moderate. So mild was the winter of 1847–8, that we might have supposed that it was impossible for any hardy plant to have been injured; yet the common raspberry we grow here, in some situations near the city, had the half of the canes destroyed with the little winter we had.

Pinus palustris grows well. *Magnolia grandiflora*, and many other evergreens of the southern states, grow well in Britain,

and not suffer by the winter ; yet they are tender, and by no means hardy in the middle states.

To make the Camellia thrive in a *pit*, where no fire is kept, it is necessary to re-pot them in October, or sooner, into a pot one size larger than the pot they are in the time of repotting, provided the roots are well matted around the ball ; if not, it is not necessary to give them a larger pot, but merely reduce the ball till you come to roots, and put the plants into the same pots with fresh soil, taking care to *pack the earth considerably harder* around the roots of Camellias than most other plants you grow, or they will not root freely. If this is not attended to, they will be apt to get the earth *soured* with the abundance of water they receive while flowering, and especially when they finish growing ; especially as the person who waters is apt to continue the same quantity of water after the growth is made, under the impression, the warmer the weather they will require more water ; whereas, they only require an immoderate quantity during their time of growing and flowering, (which the gardener is able to perceive by their rapid absorption of moisture, without any instructions.) After potting, they are fit to be put into the place where they are to remain over winter, without artificial heat, and will be able to stand 12° of frost, [i. e., a temperature of 20° above zero.] On the other hand, if your Camellias, with the roots matted around the pots or tubs, are exposed to 8° or even 6° of frost for a few days, you may say farewell to them. They are dead to a certainty ; they will look as if they were not injured till the weather becomes warmer, when they will speedily show what a decided effect

the frost has had on them. It has, in this case, penetrated through the pot, and made the roots incapable of performing their proper functions. Where there is abundance of earth between the pot and roots of the plants, no fears may be entertained of their safety. However, it is necessary to cover your pit with shutters [and mats in cold weather,] about one hour before sunset, removing the same every day (when the sun makes his appearance,) about 8, A. M., if your pit looks to the east, and about 10, A. M., in a south exposure. In this latitude, the weather must be extremely cold when more frost gets into the pit in one night than four hours' sun is able to dispel. Respectfully yours. JAS. RITCHIE.

Kensington, Philadelphia, Jan. 10, 1849.
.....

[Mr. RITCHIE's experience is quite to the purpose, respecting the amount of cold which this plant will bear ; and he is right in saying that many evergreen plants, which stand the English winters perfectly, are too tender for the middle states ; as well as that this is owing, not so much to low temperature with us, as to our bright sun in winter. On this account, complete shelter from the sun in winter is the first necessity for a half hardy or tender plant ; and we have little doubt that if the Camellia will bear the winter in England, at a moderately low temperature, it will do so here in parts of the country of the same mean temperature, provided the sun is kept from touching the plant from November to March. A large number of deciduous trees, on the other hand, stand the winter much better here than in England, because they are perfectly dormant in winter, and because they mature their wood better here than there. Ed.]

A NOTICE OF THE DOUBLE JAPAN SPIREA.

BY JAMES WILSON, ALBANY.

DEAR SIR—Have you seen the new *Spirea prunifolia pleno* in flower? It is truly a beautiful plant. When the engraving of it appeared in the *Horticulturist*, I had my doubts about its equalling that account and representation. I have it now in flower in my green-house, and am quite delighted with it. Indeed, I think it surpasses, in beauty and appearance, the engraving. It has a more light and airy appearance; and if it should not prove hardy with us, here at the north, I know no plant, except the *Camellia*, that seems better adapted for the green-house. Its culture and propagation being of the easiest description.

The plants I now have in flower, are small; having been propagated from a plant I purchased of Mr. Boll, of New-York, which was imported by him last winter. Striking as is the beauty of these small plants, what must it be upon a fine old established plant? The flowers are pure white, and very double, as far as displayed on my plants. They grow in clusters of from three to five; and in no instance can I discover more than five, which may be owing to my plants being young and not well established, as you say they grow by threes or sixes. Many of mine have only four, some two; but in most cases, when there are only two, I find one abortive.

This charming shrub needs only to be seen, to be admired. No lover of flowers ought to be without it. If hardy, as I think it will be, even in this latitude, it will surpass in appearance, in my opinion, that beautiful old favorite, the *Double Flowering Almond*.

JAS. WILSON.

Albany, January 9, 1849.



Fig. 43.—The Double Japan Spirea.

REMARKS.—We are glad to hear of the first blooming of this most exquisite little shrub in this country. There is scarcely a doubt that it will prove perfectly hardy in the open shrubbery; and of that point we, and others who have plants established out of doors, will be able to judge when the spring opens. It blooms so freely indoors, and forces so well, that its delicate snowy

wreaths of pure white blossoms will soon be the ornament of every conservatory in winter, as of every flower garden in the spring. Although only introduced last spring, we observe that several of the leading nurserymen and florists have plants for sale already; so freely does it grow from layers and cuttings. We repeat the cut given in the first volume, which conveys only a feeble idea of its beauty. Ed.

APPARATUS FOR DRYING PRUNES AND OTHER FRUITS.

THE cultivation of the plum, in some parts of the United States, is carried to great perfection. Not only are very large crops grown, of the highest quality, but new varieties of most excellent qualities have been originated. The banks of the Hudson river, wherever the soil inclines to heavy loam, the environs of Albany and Schenectady, and a considerable part of western New-York, are perhaps the finest plum districts in the country. In many other parts of the country, where the climate is equally good, and the soil excellent, the latter is so light that it affords too complete a nursery for the *curculio*—that pest of smooth skinned stone fruit; and the plum crop is a very indifferent one.

There is no reason why, in the best plum districts, prunes should not be made on a large scale, so as to become an article of profit to the grower. A very large amount is paid by us for French prunes, imported into this country; and the labor of preparing them is not so great that we cannot (with the additional price imposed on the foreign article by freights, &c.,) compete profitably with the French growers.

Excellent prunes, indeed, are made every year by families on the Hudson for their own private consumption; and those made of the Green Gage are much more delicious than many of the imported prunes.

Minute directions for preparing prunes will be found in our work on *Fruits*. Our

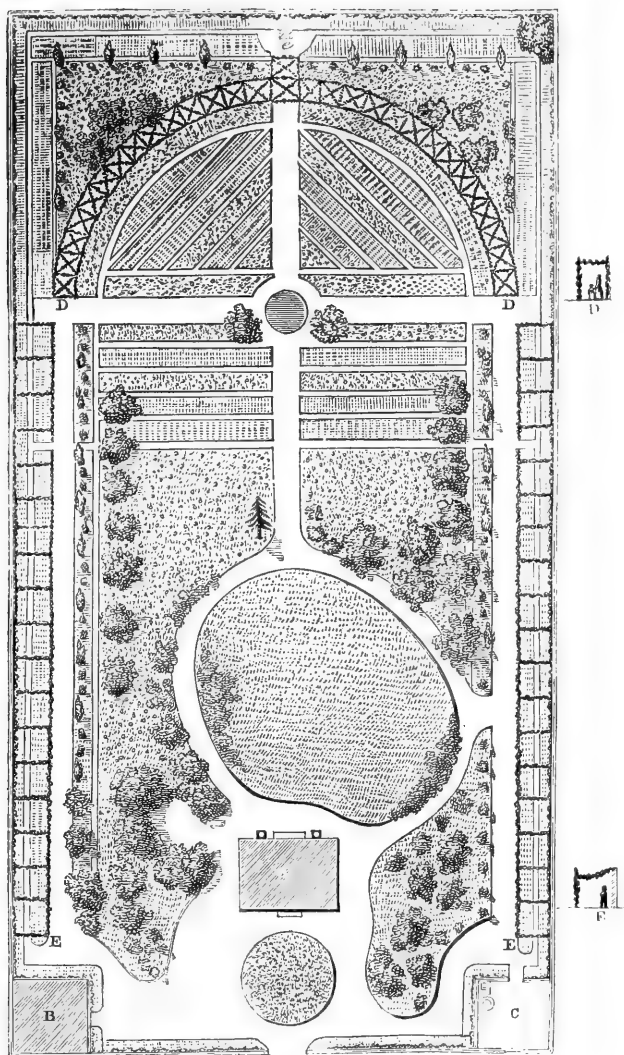
attention has been directed again to the subject, by a plan for an oven for drying prunes, with some description of the process in LIEGEL'S work on the plum,—one of the highest German authorities. We give the engraving of this oven, as it may assist those about undertaking the process.

The drying of peaches, for market, is carried on to a much greater extent in this country than in any other. The same apparatus, with slight modifications, may, perhaps, enable us to dry peaches, as well as plums, so as to retain the utmost possible flavor; for it is often the case, that the operation is so carelessly and imperfectly performed that half the flavor is lost.

"Prunes," says Liegel, "have become an important article of commerce. In order to have them fair and glossy, they must be *suddenly cooled*, when withdrawn from the oven.

"The country people in this part of Germany, prepare their prunes by putting them into their bread-ovens. I have put up, for my own use, a very conveniently arranged drying apparatus, which, after the experience of many years, I am induced to recommend; and for the construction of which I give the annexed drawing and explanatory description.

"The vault or exterior of the oven, four and a half feet long, is surrounded by a brick wall one foot thick, so that the whole stove, *a b c d*, is exactly six feet every way;



PLAN OF A SUBURBAN GARDEN.

[Hort. Feb. 1849.]

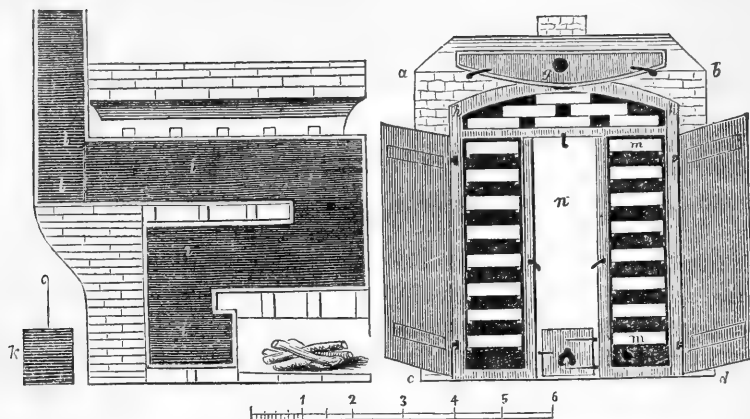


Fig. 44.—German Oven for Drying Prunes.

the front wall, *n*, being only half a foot in thickness. At the top, the vault is arched over with six inches of brick work at the crown of the arch. The flues, *i i*, are about fourteen inches square. The hurdles or trays, *m m*, for containing the prunes, rest upon shelves, fixed upon two bearers. It would be better if they rested upon *rollers*, so as to admit of their being pushed in, and drawn out, with greater ease. These lines of trays are placed at a distance of six inches from the furnace, so as to keep the fruit from too great a heat; they may be made entirely of wood, but it will be better if the bottoms are of open-work, like sieves. Their weight is such that they may be easily managed by a woman; but in preparing prunes on a large scale, let them be made of greater length and breadth, so as to just come within the strength of a more robust person.

“The wooden frame, *h h*, is that on which the two doors are hung. The door, *g*, which covers the arch, (and which is represented in the cut as open and fastened up,) shuts up the front of the upper part of the oven. In the middle of this upper door

or flap, is a round vent hole, for the escape of the moist vapor. *k*, is an iron damper, or slide, to be placed in the flue at *l l*, in order to regulate the heat.

“A thousand fully ripe Quetsches (prune plums,) make about ten pounds of dried prunes.

“Plums of different kinds may be dried, either whole, or deprived of their skins and stones. In the latter case, they are styled *prunelles*. When the White Perdrigons are used for this purpose, they are merely stoned, without skinning; the latter, from the delicacy of their skins, not being deemed necessary.

“For *prunelles*, perfectly ripe and sweet plums are to be taken, and suffered to wilt a little in the open air, in order to facilitate stripping off the peel. A better and more expeditious way is to pour hot water over them, and suffer them to steam a few moments.

“The stone is pressed out at the stem end. In the drying ovens, these prunes must be very carefully and gradually dried. They may also be dried, but not so easily, in the sun.”

DESIGN FOR A SUBURBAN GARDEN.

[SEE FRONTISPIECE.]

WE give our readers, for examination, the plan of a suburban garden, intended for a piece of ground, measuring about 140 by 270 feet.

This plan is from an elaborate French work, on the *de la composition et d'ornement des jardins*, and is one of the best specimens of the combination of the useful and the agreeable to be found in continental publications.

In this plan, A is the dwelling; B, carriage-house, wood-house, or gardener's-house; C, small private court-yard.

The whole scene immediately round the house is composed of lawn surface, dotted and grouped with ornamental trees and shrubs. Directly in front of the dwelling is a circle of rich, deep, loamy soil, filled with everblooming roses.

The whole garden is surrounded by a wall, which is covered with fruit trees trained. (For this, a tight or partially open board fence might be substituted with us, upon which the trees would grow equally well.)

At a distance of nine feet from this wall, on each side, (beginning at E,) is set a row of upright posts, from each of which a stout wire is led to the top of the wall. Over this post and wire a vine is trained, forming garlands a foot apart. By this means, a pretty effect, and a good many excellent grapes are obtained, while the vines are so far apart as not to prove the least detrimental by shading the trees trained on the wall.

At the end of this wall, we come to the semi-circular *Italian arbor*, D. This arbor, which is very light and pleasing in effect, is constructed of slender posts, rising 8 or 9 feet above the surface, from the tops of which strong transverse strips are nailed, as shown in the plan. The grapes ripen on this kind of Italian arbor much more perfectly than upon one of the common kind, thickly covered with foliage.

Beyond this arbor, and at the termination of the central walk, is a vase, rustic basket, or other ornamental object, *e*. The semi-circle, embraced within the arbor, is a space laid with regular beds. This is devoted to kitchen garden crops, as is also all the outside border behind it. The other borders (under the vines, E,) may be cropped with strawberries, or lettuces, and other small culinary vegetables, with a narrow grouping of flowers near the walk or not, as the taste of the owner may dictate. The small trees, planted in rows on the border, between the walk, E, and the ornamental lawn, are dwarf pears and apples.

With such trifling variations as different habits and circumstances would at once suggest, it appears to us that this plan is one well adapted to hundreds of neat suburban dwellings in the environs of our numerous towns; and we therefore leave it to the study of the owners of such places, who are frequently at a loss how to produce a pleasing effect without losing sight of the useful; or, as our French author says, to *ornier l'utile*.

TO CURE THE BURSTING OF THE CHERRY TREE.

BY PROFESSOR TURNER, ILLINOIS COLLEGE.

[THE following communication, from our valued correspondent in Illinois, will, we have no doubt, be found of the greatest possible interest to fruit growers all over the west. The cherry, which thrives so well, with the least possible care, in most parts of the middle and eastern states, fails almost wholly in the west. Professor TURNER gives the first satisfactory explanation of the cause, and suggests what we should conceive the efficient remedy. Ed.]

DEAR SIR—In a former communication, I promised to say a few words on what I supposed to be the cause of that most fatal of all maladies to the cherry tree in the west,—the bursting of the bark on the trunk and larger limbs. Were I called to sit on a coroner's inquest, over the dead body of such a cherry tree, I should have no hesitation, in the present state of my knowledge, in giving my verdict as follows:

“DEATH BY TIGHT LACING.”

And it is at precisely this point that I think the knife of the surgeon and pomologist could be more advantageously applied, to the relief of both animal and vegetable nature, than to any other. The remedy is simple:

“CUT THE CORSET STRINGS.”

Let us consider a little. One writer prescribes blue clay as a specific; another, gravel and sand; a third, thin, poor soil; a fourth, blue grass sward; and a fifth, some old, shaded, neglected part of the garden, in hard uncultivated ground, &c. &c. Now it is apparent that the effect of all these is the same in one respect, and probably the most important one, is one and the same, viz., they all tend to *diminish the*

amount of ascending sap, and retard the growth of the tree; and so far forth, they are all, doubtless, beneficial. The additional effect of iron in the blue clay, and of silex in the sand, may have some tonic influence on the tree itself. Again, others have shaded the trunks from the hot sun in summer. But it is believed, that where the trunk *alone* has been shaded, the remedy has as often failed as it has succeeded. But where the whole ground is shaded by a building or fence the effect would, of course, be to a certain extent the same as above.

I believe, also, it is noticed that on the richest soils, this malady is most universal, and most destructive; insomuch that I do not believe there is a single sound and healthful cherry tree, of the finer sort, on the rich prairie lands of Illinois 15 years old, within 100 miles of where I write, except on my own grounds. If so, I have looked and inquired in vain for it. The usual course of things is this: A man procures fine cherry trees from the nursery; he sets them out. They grow admirably for some years,—say from 4 to 10. Nothing could be more thrifty, or apparently more healthy. All at once the bark bursts, and peels off from the trunk and larger limbs, sometimes half round the tree; more generally on the southwestern side. The tree often continues to grow with perfect health, and with immense vigor, on the sound side; but soon bursts, and bursts again, until it is utterly destroyed.

These and other facts led me to think the injury local and mechanical—not general or constitutional.

On examination, I soon suspected it was owing mainly, if not wholly, to the girding of the "corticle," or *outer ring-bark*. I slit this outer bark in several places, on several trees, up and down with my knife, thinking to give relief.

To my surprise, some of the trees so slit burst at the very points the slits were made, though all on the north side. Others increased in size at every single point under the slit of the knife where relief was given, so as to elongate their diameters in those directions, at the rate of from half an inch to an inch and one-half in a single season. In one case, a short slit was accidentally made about one foot long, near the ground, on the west side of the tree; its eastern and western diameter, at this point, was increased, in a year or two, full three inches; while at the point of another slit, about the same length made above, or higher up the tree, by two feet, on the north side, the northern and southern diameter was enlarged almost as much, forming two great bulges on the trunk; one on the western side near the ground, and another on the northern side higher up, with an evident enlargement of both diameters throughout the entire trunk, above and below each slit, while still the tree was in perfect apparent health. I should also have said that the trees, in all these cases, apparently stopped their growth so as to be greatly compressed and flattened, or hollowed in, at those points where the bark was uncut. From these facts I took my hint, and cut up and down the north side of the trunks slits within one inch of each other, or one inch and even less apart; some within one-half an inch. In every case, the diameter was increased rapidly and speedily, directly under the slit, and compressed and apparently *bark-bound* between; even where the distance between the slits was not

more than half an inch. I also peeled off rings of the outer bark one inch or so wide, and then alternately left a strip of the same width, running round the tree entire. In every case, as before, the tree grew and "bulged" out in rings, where the bark was removed, and remained stationary and compressed where it was not.

About this time my largest, finest cherry tree, (White Heart,) began to burst near the ground, on the southwest side.

I of course took my knife, and took the corticle wholly off of the trunk, and all the large limbs, as high up as I could reach. It was not one week before the inner bark cracked open once every quarter of an inch all round the tree, in the natural way; and though this was three years ago, (I think,) the tree is now perfectly sound and healthy, and bore fruit last season. I have since peeled other trees, with equal success in every case.

I fancied that with all this painstaking I had made a discovery. But lo! "there is nothing new under the sun." For, as I was boasting of my discovery and my success, to a man from the rich valleys of the Ohio, he very coolly replied, "that is nothing; we always knew, on the Miama Bottoms, that our best cherry trees would die without peeling." And so went all my renown, as a discoverer. So much, however, for the facts in the case. Now for my theory, which may be right, or may be wrong.

Almost every tree passes a certain *crisis*, in changing from a smooth bark into a rough bark tree; that is, the original corticle from the seed dies, and splits, and sheds off, or it is glued on merely as a dead outer coat. For example, the shagbark hickory throws it off. The pine keeps it on as a dead covering.

Now this outer bark will be *thin*, and

easily *rotted* and broken by the expanding force of the ascending sap of the tree, or thick, strong, and hard to break or rot, according as the soil is rich or poor; in other words, according to the vigor of the general growth. If the tree stands on a poor soil, two or three effects will follow.

1. The corticle will be likely to be thin, corresponding to the rest of the growth.

2. Being thin, when the crisis of the tree comes, (in which this corticle must burst and die, and the tree pass from a smooth bark to a rough bark tree,) it easily breaks, under the force of the natural pressure, at frequent intervals all around.

3. In the top of the tree the amount of foliage, and of course of the return sap, will be correspondingly small; and the force of the downward sap so small, that if the tree *stands a year or two*, until the corticle dies and partially rots, it will incur no particular danger.

But on a rich soil, exactly the reverse of all this happens.

The corticle grows exceedingly thick, tough and strong, and on several of the finer cherries it is like a hemp cord, as any one may see by trying to break a strip, even one inch wide. The top is immensely wide, and full of leaf and return sap. All the internal condition of the tree, both root and top, is such, before the crisis comes, that it would naturally increase the diameter of the trunk from one to two inches in a single season if it could; but the tough, strong corticle holds it fast, and it cannot expand a single hair's breadth. Now if the tree could stand still a year or two, until the corticle should naturally die, and partially rot, it could get along; but the rich soil below, and the spreading top above, will not allow it. They wish to proceed with their appropriate functions, and they will, until the force of the return sap,

gorging all the vessels of the trunk, at last bursts out through the corticle by mere mechanical pressure, or accumulates as dead matter, to ferment on the southern side, and be frozen and torn off by the frosts of winter.

I should also have said that a poor soil, of course, delays this period of crisis, while a rich one necessarily hastens it; that is, brings it, with all its immediate exigencies at once upon the tree at an earlier age.

Such, in general, is my theory. In all probability, those more wise and more skilled in such matters, can propose a better and truer one; and if they do it in your paper, my object will still be fully accomplished.

My remedy, of course, would be when the crisis comes, as above indicated. But as a preventive, a poor soil, low culture, and, above all, allowing *all the limbs* to grow, as nature indicates, from the ground up, so as thereby to increase, as much as possible, the ratio of the surface for the descending sap, as compared with the ascending current, ought to be recommended. But it may be justly doubted whether, if the tree should be annually *headed down*, instead of *trimmed up*, or even if wholly left to nature's own course from the outset, it would not safely pass this crisis and take care of itself, even in the richest soil. But if the knife must be used first in disturbing the natural relations between the trunk and top, so as to give the tree ten or twenty times the amount of length of trunk nature designed for it, I think the knife must also be used to afford the needed relief. In other words, if scissors make stays, scissors should by all means rip them open again; at least as soon as disease and derangement begin to be apparent. The facts on which this theory is based, I admit, are limited; and should the experience of

others differ from mine, we must still admit them facts, and search for causes and remedies somewhere else. As I have stated all the experience I have had, I have, of course, done all that, as an individual, I could do. I hope others will do likewise ;

and that you will help us all to the whole truth in this important matter. The slitting of the trees I found worse than nothing. *Entire peeling* alone seemed beneficial.

J. B. TURNER.

Illinois College, December 23, 1843.

FOREIGN NOTICES.

CONTINENTAL GARDENS.—The following is a translation of a portion of some notes on the Horticulture of Europe, by M. H. Lecoq, Professor of Natural History, Clermont-Ferrant, Belgium:—

BOTANIC GARDEN OF VENICE.

After traversing the smiling landscapes of Switzerland, and the beautiful plains of Lombardy, I arrived at Venice as the Statice and the Aster covered all the strips of ground intersected by the canals, with their pretty flowers. The town itself is situated, as is known, in the midst of waters. It is quite astonishing to see such a grand display of flowers and fruit as is here presented. The shops of the flower-dealers are numerous, and always well supplied with flowers; consisting of inferior zinnias, single or semi-double dahlias, pinks, nearly wild, some vervains, and a few tagetes and China-asters. With these miserable flowers, arranged among some leaves of rose-scented pelargoniums, small bouquets are made, which pretty flower-girls offer you in the arcade of La Place St. Mark.

On Sundays and fête-days each dealer makes his exhibition before his door. From forty to fifty decanters contain flowers similar to those just mentioned. In the midst of all is generally placed a crown, a large bouquet, or some other object exquisitely composed. It is hardly to be conceived that with so poor resources so fine an effect could be produced.

If the flowers present nothing remarkable, this cannot be said of the fruit. During the whole of September the warehouses of the fruiterers were completely decorated. There were to be seen numerous gondolas entering Venice from all parts of the adjacent coast, and even from the other side of the Adriatic, laden with baskets, in which the various kinds of fruit were arranged like the flowers in a bouquet: here, the rosy and velvety peaches raised in regular pyramid; there, grapes of different colours grouped in crowns above each other; then azaroles of a brilliant red; pears and apples of various kinds, tomatoes and pomegranates. These gondolas move slowly and steadily along, and arrive at their destination without anything being displaced by shaking. The baskets are now placed in several ranges, in which the tomatoes and the azaroles are intermixed to in-

crease the effect, in contrast with the other fruits. The front is set off with several varieties of figs, and the perspective is formed with melons. The floor of this sailing shop is generally furnished with evergreens forming a kind of screen, open at a certain point in order to reveal the fair Madone, who is busy attracting her customers towards so fine a display. It is thus that Venice receives every morning the tribute of the banks of the Adriatic, and horticulture is in these quarters a very considerable source of traffic. Innumerable barges also arrive, laden with melons and sweet gourds, which the people use very extensively. The sale of these fruits occupies a great number of individuals. Everywhere water-melons, designated in the country by the name of *Cocomeres*, are hung out for sale; they are large, of a fine green, and with the flesh of a delicate rose-colour, and the seeds brown. The veritable dealer in *cocomeres* takes his stand in some public place, or on the Quai des Esclavons; he cuts one of his fruit in slices, at from one to two centimes—the fifth part of a farthing. He understands how to attract his customers by the very art with which he cuts a melon. With grimaces, gestures, and snacking his fingers, he dilates at considerable latitude on the taste, the colour, the smell, and the tenderness of the fruit he has just opened, which is always superior to any that he has yet opened, and those remaining in his possession; but as soon as that one has found a customer, he finds, on taking up another, that he had formed too high an estimate of the preceding one; what he has now in his hand is still better—it is extraordinary, and delicious beyond comparison. Our merchant, who has thus been cutting slices of melons perhaps for twenty years, continues to find, or, with the innumerable superlatives of which the Italian language is susceptible, affects to find, that the fruit he has just opened is superior to all those which have passed through his hands.

There are two sorts of gourds also sold in the streets—one long called *Succo-zanta*, and the other flat, known under the name of *Barruch*. These obtain considerable sale; they are sold in slices roasted in an oven, are very palatable, and as low as from one to five centimes. The people

make a prodigious consumption of these fruits; and although the confectioners of Auvergne assure us that the flesh of gourds and pumpkins cannot be made into paste, (an experiment which they have probably never tried!) those of Venice unaffectedly pass off the paste of gourds, without pretending to have apricots mixed with it.

In one of the islands of Venice, near the railway station, there is a Botanic Garden, under the able superintendence of Mr. Joseph Ruchinger. This garden was formed by a decree of the 23d April, 1810, and has arrived slowly but steadily to the prosperous condition in which it appears at the present day. The number of plants cultivated in it amounts to five thousand. The garden is in the form of a parallelogram, and very extensive. It is bounded by two large ditches of saltish water connected with the canals, and on digging to the depth of three feet, a briny kind of water is found; and if this soil, otherwise rich in mineral substances, suits some plants, there are others, and of this number those with large roots, to which it is essentially hurtful. Moreover, there are some kinds that cannot be cultivated at Venice, even in pots, owing to the proximity of the canals, and the air surrounding this locality being charged with saline particles.

There are many plants in this garden which deserve notice, whether for their rarity, fine growth, easy culture, or the readiness with which they flower and fruit. Of this number is the handsome *Yucca aloifolia*, thirty years old, and planted out during twenty-eight years. It grows by a south-west wall, without other shelter, and is about twenty feet high, divided into ten branches, which every year send out numerous panicles of flowers, that always ripen their fruit. Near the entrance to the garden is a pretty clump of *Thuja occidentalis* (Arborvitæ,) about four feet high, rising in twelve regular pyramids; near this is another entirely formed of *Laurus nobilis* (bay,) about six feet high, then another of *Taxus baccata* (yew,) about four feet high. There are many trees remarkable for their vigorous vegetation, as *Plantanus orientalis*, sixty feet high; *Broussonetia papyrifera*, upwards of forty feet; *Gleditschia triacanthos*, sixty feet; *Ailanthus glandulosus*, forty-five feet; and a superb tree of *Melia Azedarach*, thirty feet.

Leaving these fine specimens, the visitor is led towards the conservatory, in front of which a large number of Cacti are growing, some in pots, and others in the ground. Many of these plants deserve particular mention; and, perhaps, in their native countries they could not be grown finer than they are here. I observed, in particular, a *Cereus nuycticalus*, thirteen feet high, though only seven years old; *C. setaceus*, ten feet, and five years old; a plant of *C. serpentinus* had attained sixteen feet in eight years; *C. ramosus*, nine feet in six years; and a *C. triangularis*, thirteen feet in eleven years. Those who are in the habit of growing succulents, know that the *Cereuses* grow

very fast; but it is very seldom they reach such dimensions, in so little time. In the present instance, the vigorous growth may be traced to the mode of culture employed by M. Ruchinger. He treats these plants as everybody does the dahlias; that is, with well-manured soil and plenty of water. These essentials, with the humid and maritime atmosphere of Venice, sufficiently explain this luxuriant vegetation.

The *Opuntias*, which are treated in the same manner, are still more curious than the *Cereuses*. I do not think there is to be found in Europe a larger specimen of *O. brasiliensis* than that growing in a box before the large conservatory in this garden. It is thirty-two years old, with its trunk quite thorny, upwards of twenty feet high, and more than eighteen inches in circumference. It is slightly conic, and terminated by a rounded head. It resembles a large tree without leaves, and flat branches, which are yearly covered with fruit. Near this were large clumps of other sorts of *opuntias*. Of these most distinguished, were *O. crassa*, about five feet high; *O. cylindrica*, upwards of ten feet; *O. dejecta*, nearly five feet; *O. pilulominea*, six feet; *O. spinosissima*, ten feet; and *O. undulata*, upwards of four feet high. The fine thorns with which the most of these plants are furnished, and the large and numerous flowers which succeed each other on their articulated disks, render them objects of the most lively interest both to botanists and gardeners. In this garden, also, are two plants of *Ginkgo biloba* [*Salisburia adiantifolia*, the Maiden-hair tree,] male and female, upwards of forty feet in height; and two of *Juniperus virginiana*, growing in the form of rounded pyramids, and reaching the height of twenty feet. Some of the clumps contain numerous arborescent subjects, both deciduous and evergreen. Others, of a circular form, are arranged according to the Linnæan system, and serve as a sort of botanic school; while another department is set apart for plants possessing medicinal properties. Those, also, employed in the arts and sciences, as well as those of a poisonous nature, are allotted separate places. Not far from these plats is another, in which is growing a white poplar (*Populus alba*,) hardly thirty-two years old, and already upwards of seventy feet high; the bottom of the ditches constantly percolating water, into which the roots no doubt penetrate, may explain, to a certain extent, this activity of development.

A little farther on is a subterranean passage, constructed with materials obtained at the demolition of the convent of which the garden has usurped the place. From this the visitor proceeds over an aqueduct, which introduces from the canals the water necessary for the culture of marine plants. Close to this is a mound constructed with old ruins, tastefully planted, and commanding a magnificent view. From hence may be seen a great number of the canals, the railway station, and, in the distance, the Euganean mountains, at the back of the new bridge which connects Venice

with the mainland. Not far from this point of view, may be seen some remarkable plants. Among these are *Cupressus horizontalis*, about six feet high; and a vast row of *Laarus nobilis*, thirteen feet high. Towards the south, in the open ground, is a large *Agave americana*, which even for this and the next year, shows its gigantic panicles.

There are no wild plants at Venice; and in order to meet with these growing spontaneously, one must visit the banks of the canals touching the mainland, or the banks of the Adriatic. There, are found plants somewhat rare, growing with others of greater frequency. There are *Eryngium amethystinum*, *Cakile maritima*, *Scorzonera hispanica*, *Critimum maritimum*, *Plantago cornuti*, and several kinds of *Salsola* and *Salicornia*. There, in the midst of this maritime vegetation, *Verbena officinalis*, *Cichorium Intybus*, *Medicago falcata*, and *Xanthium macrocarpum*, grow everywhere on the banks. I have found *Poa eragrostis* and *Tragus racemosus* growing on the sands—grasses which also grow beside our mineral springs.

BOTANIC GARDEN OF PADUA.

This ancient town has preserved much of its magnificence. There are beautiful and handsome churches, prize pictures, and rich mausoleums. Even the language of St. Anthony is fondly cherished. In Padua are many large squares and promenades, and the statues are really enormous.

The Botanic Garden, the oldest in Italy, was the scene of a portion of the *fêtes* which are held during the sitting of Congress. Groups of musicians were distributed on the lawn, under the shade of large old exotic trees. A red and white tent was erected before the conservatories, and afforded protection to a horticultural exhibition, at which every amateur had been invited to compete. After having seen the exhibitions of Ghent, Paris, and Clermont; after having seen the horticulturalists contend, with trouble and perseverance, against the rigors of climate, I expected to find, at this city of flowers, under a pure sky, an ethereal garden, such as Mahomet promised to his followers, or an Eden, such as had been given to our first parents. Perhaps these preconceived ideas had, in spite of me, some influence on my imagination; but I must say, that what struck me most in this exhibition, was the gaudiness of the sentinels which were stationed on every hand.

But apart from this all was arranged with much taste. In the midst of the tent was a column with the bust of Cæsalpin, and all around were grouped the flowers and fruit, of which the latter was the most select, and consisted of many varieties, belonging in particular to the fine family of *Hesperides* (oranges.) Of such were the *Citrus pictorum*, very large, and covered with orange warts; a dish of *Citrus del Brocco*, of *Citrus florentina*, of a fine green; of *Citrus "scadek"* having the form of a handsome colocintida gourd, a little depressed at the crown; of *Citrus verrucosa*, covered with warts, all from Mr. Scipion Maupoll,

who also furnished fine grapes of "*Uva odorata*." M. de Salvi, of Venice, sent a curious lot of ripe fruit of *Magnolia*, consisting of *M. triumphans*, *Soulangeana*, *discolor*, *amabilis*, *cordata*, *speciosa*, *Yulan*, *glauca*, *striata*, *grandiflora*, *macrophylla*, and *Norbertiana*; also fruit of *Maclura aurantiaca*, *camellias*, artificially impregnated, and *Asimina triloba*. Besides these, there was a fruit-bearing *Banana*; a *Vanilla*, with its siliques nearly ripe; numerous *Pine-apples*, and outside the tent a collection of oranges in pots, all bearing fruit. But amidst all these riches, the attention of the visitor was especially directed to a dwarf pear tree. It was growing in a pot, and did not measure more than a foot and a half in height. It appeared to be *Pyrus regalis*, and had but one fruit, which, at the least, must have weighed two pounds. This prodigy belonged to the Abbé Berleze. If anything was wanted to complete the fine picture of the pomological riches of Lombardy, it was only necessary to go to the public streets and the markets; there the numerous varieties of figs, peaches, grapes, pomegranates, apples, and pears, gourds, and melons, formed, themselves, a grand exhibition. I much regretted to see the art of the *Bouquetier*, which is carried on in Lombardy, as in Florence, to so high a degree of perfection, represented by a single subject, consisting of a vase of flowers, composed by Signor Dominico Beda. To make a bouquet sometimes requires great pains, for in Italy, at all the fêtes, those ornamental delicacies furnished by the confectioner are generally replaced by elegant bouquets of natural flowers. The bouquet is sometimes a vase, a crown, an obelisk, or something else in this way, serving as the ornament of the banquet, and fixing the attention of the company.

I shall try to give an idea of a bouquet by describing that of Signor Beda. The flowers of it formed two ranges or tiers composed of crowns artistically variegated. *Verbenas* of different colours, commencing with bright red and finishing with the most delicate rose, formed concentric circles, which surrounded beautiful corymbs of yellow *Lantanas* in the centre and roses outside; then, white umbels of *Clypeola maritima*, a plant found at the sea-shore, and which is used in forming the base of the Italian bouquets. A garland of the green leaves of rose-scented *Geraniums* bordered this first part of the structure, like the rim of the vase of a little fountain, and from which were suspended by the long peduncles the buds and half-opened flowers of *Fuchsias*. The second, or under part of the structure, wider than the other, presented a beautiful blue and white mosaic work, composed of *Delphiniums* and *Clypeola maritima*. This fine assemblage was surrounded by a large crown of *Heliotropes*, and connected with zones of rose and violet-coloured *Balsams*, alternating with *Stevia* and *Motherwort*. At last a garle of red *Gomphrenas*, a diadem of *Nasturtiums*, an aureole set off with *Mimosa*, and the hanging flowers of *Abutilon striatum*, completed the whole structure.

from which our florists might have derived inspiration. Already beautiful performances have been produced in this way since the introduction of large bouquets. Bouquets are now a considerable article of commerce throughout Europe,—a tax which is paid without constraint, and the receipt of which is a smile.

The botanic garden of Padua is one of the oldest in Europe, and in which there are exotic trees of the largest size, bearing their fruit as in their native countries. On oriental Plane dates from 1545, and this monument of three centuries is in all the vigor of age; its only infirmity consists in a great number of knots, which render it very curious without destroying its robust health. The *Magnolia grandiflora* is as strong as the oak of our forests, and is covered with fruit every year. There is also a very old tree of Ginko biloba, and the high pyramids of Cypresses bespeak the remote period when they were planted. *Quercus ilex*, and *Ægilops*, have also attained to a large size. The *Agnus-castus* (*Vitex Agnus-castus*), which is but a simple shrub in our lawns, has here attained to the stature of a large tree; it appears to date from that good old time when the rustics believed in its virtues, or when the ancient monks, provided with a branch of the tutelar shrub, set the enraged demons at defiance in respect to the repose of their souls. But the tree, in getting old, has no doubt lost its powers; or if there still issues from it an atmosphere of purity, it extends but little beyond its own shade. *Hort. Magazine*.

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 “THE PRESERVATION OF POTATOES.—We have read the following note in the Bulletin of the meetings of the National and Central Society of Agriculture, second series, fourth volume, number 2:

“*Process of Keeping Potatoes*; by Mons. BRUNO-FOUQUE.—Nothing is more simple and econo-

mical. My discovery is so easily put in practice, that you are almost led not to believe it. Nevertheless, all conjectures are vain; and whoever wishes to convince himself of what I say, let him try the plan here recommended.

“Put some lime in a large tub or hole dug in the earth, and slake it in the same way as the masons do. As soon as the process is completed, throw in the potatoes you desire to preserve, (being careful that the lime entirely covers them,) and leave them there *twelve* hours; at the expiration of which time, take them out, wash them, and dry them in the sun. By employing this extremely easy and simple method, you can preserve your potatoes *for several years* without the loss of flavor, and they will never vegetate.”

.....
 WINTER BULBS.—It is not too late to speculate in these attractive productions, so admirable for adorning the interior of a dwelling-house in winter. Hyacinths may still be planted in pots, and put into glasses; and those which have been brought forward, according to previous directions, should be brought in-doors for forcing.

These bulbs can be grown in baskets of moss with excellent effect. The baskets may be varied in shape and size according to the fancy of the amateur; they must have the lower parts impervious to water, either by being made of metal, or by having a China dish put in of the right size. This must be filled with sand, covered with a layer of moss, on which the bulbs are to be placed. If rooted before put in, the plants will be more sure of a regular advancement. The whole should be covered with the best specimens of fresh green moss that can be procured, and a moderate degree of moisture kept up in the whole mass. If the colours are properly varied, these moss-baskets will prove beautiful objects. *Gard. Chron.*

DOMESTIC NOTICES.

CIRCULAR TO THE GENERAL FRUIT COMMITTEE.—The following Circular has already been dispatched to the chairmen of state committees of the Congress of Fruit-growers, for the purpose of serving as a guide in some measure to their labors in preparing reports for the next session of the Congress of Fruit-growers.

As there are also many of our readers, not upon these committees, who are quite as zealous as the committees, in all matters touching the progress of fruit culture, and who will therefore gladly help the good cause by placing such materials or experience as they may possess in the hands of the chairmen or members of these committees, or lay the same, themselves, before the Congress at its next session,—we reprint the Circular in our columns, that it may find its way to all parts of the country.

(CIRCULAR.)

Dear Sir—As several members of the *General Fruit Committee*, have requested information regarding their duties during the year preceding the next session of the Congress of Fruit Growers, I have thought it might promote a systematic spirit of co-operation among the various members of the State Committees, to address a few *suggestions*, directing your attention to the most prominent points of investigation.

It is, I believe, understood that our investigations are to be directed, in the first place, rather to the acquisition of information, regarding the merits and culture of fruits already known and described, than to collecting new fruits. It is particularly desirable to arrive at all important facts, regarding those varieties whose excellence, hardiness, and productiveness, render them valuable

either to the state or country generally, in a commercial point of view.

Your attention, and that of your State Committee, should therefore be especially directed as follows:

Ascertaining upon what kind of natural soils, superior *crops* of any of the standard fruits are grown in your state; particularly whether lime or potash abound in the soil—or any rock or sub-soil whose decomposition furnishes these or other mineral substances essential to the perfection of the fruit.

If the result has been obtained by the use of manures, or any peculiar system of cultivation, what kinds of manures or composts have been applied, how, and when, and upon what kind of natural soil; and also what mode of culture has been pursued.

In districts remarkable for the excellence of a given variety of good fruit, ascertain if such is the case upon *various* soils in such district, or only upon particular soils, and in the latter case the character of the latter; also how large are the annual crops, and how long the variety has been in cultivation.

Ascertain what are the most profitable market fruits of good quality in your state, and whether any particular sorts require extra pruning, manuring, or other mode of culture.

Ascertain which varieties succeed only, and which thrive best, upon particular *stocks*, (as the Louise Bonne de Jersey pear, on quince, &c.)

Ascertain what varieties have been tried and condemned as inferior or worthless, by experienced fruit growers in your state.

Ascertain the synonymous or local names by which any standard varieties are known in your state.

Also, whether the trees of any varieties are particularly liable to blight or other diseases.

What grapes are the best for vineyard culture, if vineyards are planted in your portion of the Union.

What raspberries, strawberries, currants, apricots, nectarines, and other minor fruits of good quality, are found best adapted to culture in your state.

In judging of the *flavor* of fruits, it will, in order to arrive at uniformity, be well perhaps to adopt the comparative degrees of merit adopted at the Convention, viz: *good, very good, best*.

Perhaps the following may be taken as examples for this purpose:

	GOOD.	VERY GOOD.	BEST.
APPLES.	Maiden's Blush.	Gravenstein.	Esopus Spitz.
PEARS.	Napoleon.	Bartlett.	Seckel.
PLUMS.	Lombard.	Washington.	Green Gage.
CHERRIES.	Black Heart.	Elton.	Black Eagle.
PEACHES.	Crawford's Late.	Old Mixon Free.	George IV.

And in order to agree regarding these terms, certain standard sorts should be taken, which will represent them, in order to compare other fruits to ascertain their value.

Fruits falling below the rank "*good*," are unworthy of cultivation (excepting culinary sorts,) unless their hardihood and productiveness are so remarkable as to make them valuable in particular localities, or for market cultivation.

Though the attention of this committee is understood to be chiefly directed to acquiring information regarding varieties of fruit already known, yet some attention should be paid to the examination of remarkable *new* varieties. Unless the latter, however, rank as high as "*good*," they ought not to receive attention, and a new sort, even if excellent, should it be meagre, unhealthy, or unproductive in habit, is no longer worthy of notice.

When a variety of "*very good*" or "*best*" quality is presented to the examination of a state committee, and there are doubts whether it is really a new variety, specimens should be sent to the chairman at Boston, Philadelphia, or the chairman of this committee, so that it may be subjected to more complete examination. And outlines and careful descriptions (for the use of the Congress of Fruit-growers,) should be made from new varieties of high merit in all respects. In drawing up such *descriptions*, the "*Pomological Rules*" adopted by the various horticultural societies should be followed as a guide, in order to avoid diffuseness and variety of terms on one hand, or imperfection in details on the other.

The chairmen of the State Committees of any states remarkable for the production, in great variety or excellence, of certain fruits, as the Apple, Pear, Plum, Peach, &c., are expected to call together their committees at the *season of maturity* of those fruits, to examine specimens, elicit information, and prepare the same for the next Congress.

In those states where full committees were not appointed at the late session of the Congress, authority was left with the chairmen of those State Committees to fill the vacancies by the appointment of such pomologists or fruit-growers residing within such states as are, in the opinion of the chairman, likely to assist most completely in carrying out the views of the Congress.

Hoping for your active co-operation in carrying out these views for the benefit of pomological and horticultural science in the country at large, and of a large class of cultivators of the soil,

I am, very respectfully yours,

A. J. DOWNING,

Chairman of the General Fruit Committee.

P. S. I will be happy at all times to correspond with you on any subjects within the range of our duties, and will be particularly obliged for an opportunity to examine any specimens of new or rare fruits which you may consider worthy of notice, but more especially those of "*very good*" or "*best*" quality.

THE FRUIT COMMITTEES.—The President of the *Congress of Fruit-growers* has, at the request of horticulturists in Iowa, appointed the following gentlemen a committee for that state, viz: JAS. GRANT, of Davenport, (chairman,) JAMES WEED, Bloomington, H. GATES, Burlington, HOMER J. FINLEY and JOHN EVANS, of Davenport.

Col. LITTLE, chairman of the Maine state committee, also informs us that he has filled up the vacancies in his committee, which is now composed as follows: HENRY LITTLE, Bangor, (chairman,) STEPHEN L. GOODALE, Saco, WM. A. DREW, Augusta, WALTER GOODALE, South Orrington, EZEKIEL HOLMES, Winthrop.

We are glad to perceive, by our correspondence, that the chairmen of many of the different committees are zealously engaged, this winter, collecting facts on the subject of orchards; and we refer those of them to whom we have not otherwise replied, to the suggestions in the printed *Circular*.

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HORTICULTURAL LIBRARY.—We give the following list of the most desirable books for a small horticultural library, at the request of the secretaries of several newly organized horticultural societies, in various parts of the country:

Loudon's *Encyclopedia of Gardening*. (This work is a very complete digest of the whole subject, useful and ornamental.) 5th edition. 1475 pages. \$10.

Loudon's *Suburban Horticulturist*. (Loudon's latest work on the practical culture of the kitchen, fruit, and forcing garden.) 1 vol., 8vo. 730 pages. \$6.

Loudon's *Encyclopedia of Plants*. (A most valuable botanical dictionary, with figures of 10,000 species;) new edition, with supplement. 1 volume. 1329 pages. \$18.

Loudon's *Encyclopedia of Trees and Shrubs*. 1 volume. 1232 pages. \$13.

Lindley's *Theory of Horticulture*. (The best work on the subject.) \$1.50.

Lindley's *Introduction to Botany*. (New edition; the most complete English work on structural botany.) 2 volumes. \$6.

Lindley's *Vegetable Kingdom*. \$7.

Lindley's (George) *Guide to the Orchard*. 1 vol., 12mo. New-York edition. \$1. (This is the best English work on fruits.)

Rippon's *Landscape Gardening*. (Loudon's edition.) \$8.

Bridgeman's *Gardener's Assistant*. \$2.

Buist's *Family Kitchen Gardener*. 50 cents.

Ladies' *Companion to the Flower Garden*. (Mrs. Loudon's.) New-York edition. \$1.25.

Thomas' *Fruit Culturist*. 50 cents.

Buist's *American Flower Garden Directory*. \$1.

The London Horticultural Society's *Descriptive Catalogue of Fruits*. 3d edition. \$1.50.

Coxe on *Fruit Trees*.

Liebig's *Agricultural Chemistry*. 4th edition. \$1.25.

Johnson's *Dictionary of Gardening*. (Edited by Landreth.) \$1.50.

McIntosh's *Green-House*. \$3.

Gray's *Botanical Text Book*. 2d ed. \$1.75.

Gray's *Botany of the Northern States*. \$1.75.

Allen on the *Culture of the Grape*. 75 cents.

The *Flower Garden of Ornamental Annuals*.

(Mrs. Loudon's.) 48 richly coloured plates. \$11.

The *Flower Garden of Ornamental Perennials*.

(Mrs. Loudon's.) 45 coloured plates. \$23.

Harris' *Insects Injurious to Vegetation*. \$1.25.

Rivers' *Rose Amateurs' Guide*. \$1.

Parsons on the *Rose*. \$1.50.

Boussingault's *Rural Economy*. \$1.50.

Paxton's *Dictionary of Plants*.

In addition to the above we will add, that the most valuable foreign gardening periodicals, are the *Gardener's Chronicle*, (London,) weekly; cost per annum, including postage, \$9.50: and *Revue Horticole*, (Paris,) semi-monthly, (small;) \$3. Paxton's *Magazine of Botany*; the best English work on new plants, with richly coloured plates, monthly; at \$10: and Van Houtte's *Flore des Serre et Jardins*; a work of the same kind, equally beautiful, at \$8.

The *Bon Jardinier*, is the most valuable practical French work on general horticulture; a new edition of which is published every year, at Paris, at \$1.75.

Duhamel's *Traité des Arbres Fruiteurs*. An old work, in two quarto volumes, useful for reference, may be had for \$7.

Noisette's *Jardin Fruitier*. A standard modern French work, but quite imperfect,—many coloured plates of fruit. \$30.

Ronalds on the *Apple*. An English work, (1831,) with exquisite plates. \$26.

The *Pomological Magazine*; (i. e., Lindley's *British Fruits*, as the new edition is termed.) 3 volumes, 8vo. Coloured plates. \$30.

All, or nearly all, of the above works may be procured of Mr. WILEY, bookseller, publisher and importer, 161 Broadway, New-York. And any of the foreign books named, which may not be at hand, will be imported by him to order, within three or four weeks.

COVERING TENDER ROSES.—A correspondent in Cayuga county asks for particular directions for protecting tender everblooming roses in winter.

For roses that are quite tender, put a coat of dry peat earth, charcoal dust, or tan, five or six inches deep, over the roots and around the stems of the plants. Upon this lay branches of evergreens; or, if these are not at hand, straw or litter. Tea roses may be kept out of doors in this way with us, but probably not in Cayuga county. But there this mode will apply to Bourbon, China, and Noisette roses.

If these everblooming roses are planted in circular beds, of three to six feet across, they not only produce an excellent effect, but are more easily covered. After putting on the light top dress-

ing, a cone-like *stack* may be formed of branches of evergreens, or *corn stalks*, over the whole bed. This cone or stack should be hollow in the middle; and then it answers the purpose of ventilation and protection admirably.

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THE AGRICULTURAL JOURNALS.—It is impossible not to notice, with feelings of the liveliest interest, the excellent and constantly improving character of our *agricultural journals*.

A few years ago, and one or two journals, exclusively devoted to agriculture, were supported with some difficulty, and by no means met with a hearty welcome from the farmers themselves. Now, every section of the country has its farming paper. Some of the states support several; while some of these journals have each a circulation of fifteen or twenty thousand copies, and are characterised by a practical sagacity, a straight forward, *coming to the point*, way of treating their subjects, that we look for in vain in most of the European agricultural journals. Among these, we always read, with especial pleasure, the oldest of the modern school of agricultural journals,—the *Albany Cultivator*, which enjoys the largest opportunities of collecting valuable information from all parts of the Union, and the matter of which is always marked by sterling sense, and strong practical talent; the *Genesee Farmer*, emanating from one of the richest farming districts in America, and always varied, spirited, and instructive; the *Prairie Farmer*, truly western in energy, boldness, downrightness, and essentially in the profound opinion, (which we are not disposed to dispute,) that the west is the seat of the greatest agricultural people that the world has ever seen; the *Southern Planter*, of Richmond, edited with the educated feeling and tact which Mr. DANIEL always evinces; and the *Southern Cultivator*, of Augusta, which is fast opening the eyes of southern agriculturists, to the necessity and value of agricultural science, *versus* planter's routine.

Mr. BATEHAM too, is, we see, earnestly striving, in the *Ohio Cultivator*, to crystallize the large experience of that great state in his columns. Mr. COLE has lately established a new journal in Massachusetts, under the familiar and popular name of the *New-England Farmer*, which we have not yet seen.

We ought not to forget here the new journal of that veteran agricultural editor, Mr. SKINNER. His "*Plough, Loom and Anvil*," now published in Philadelphia, and devoted, as its name implies, to the interests of these allied industrial powers, though edited with a solid gravity, not unsuited to the years of the senior agricultural editor in the country, is marked by an earnestness, and a labor, that commands it to a large circle of our most intelligent readers.

We wish these (and other able journals of the same class, which we are not in the habit of seeing,) all possible success. To raise the character, and elevate the intelligence of the agricultural

class, is a truly noble and praiseworthy occupation in a country like ours, where this class, from its immense majority, and the importance of its labors, both sustains and overshadows all other classes.

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OSAGE ORANGE HEDGES.—We are glad to find that this beautiful hedge plant is becoming so popular all over the middle and western states. It is, indeed, only necessary to see a hedge of it to be struck with its great beauty and excellent protective qualities. Rich glossy foliage, thick habit, rapid growth, and stout thorns; these are its strong recommendations. In the prairies of the western states, miles of this hedge were planted last year, and many more miles will be planted this. If good seeds can be obtained, they are almost as easily raised in drills, in any good garden soil, as peas; and they are fit for planting the second year.

We have had numerous inquiries lately, from various parts of the country, regarding the *hardiness* of the Osage Orange. As the best way of showing the hardiness of an untried plant, is to compare it with one that is known, we have before said that as far north as the Isabella grape ripens its fruit regularly, the Osage Orange can be grown. We may also add, that wherever the soil is dry, and the thermometer does not fall lower than 12° below zero in winter, Osage Orange *hedges* may be cultivated. We have no doubt, when the plant is raised several generations from northern seed, that it will be hardy as far north as Canada. As yet, however, we look upon it as essentially the hedge plant of the middle and western states, as the Buckthorn is of the extreme northern states, and the Cherokee Rose of the southern states. The Hawthorn is liable to so many casualties, and is so long in arriving at maturity, that experienced cultivators have nearly abandoned it in the United States.

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THE JAPAN QUINCE.—This most beautiful of spring flowering shrubs, *Cydonia japonica*, (better known to many as *Pyrus japonica*), is not half so much cultivated as it deserves to be throughout the country. About the principal cities it is becoming common; but it is yet little known in the interior. It is perfectly hardy,—forming a bush about five feet high. Its foliage is always neat and green; and, in the month of April, its flowers, of so brilliant a red that they are sometimes called "*Fairies' fire*," are thickly sprinkled over every twig. There is also a *blush*, (or, as it is called, *white*,) variety; the flowers of which closely resemble large apple blossoms. Though not so beautiful as the red, they afford a pleasing contrast when growing near by it.

Nothing is more easy of cultivation than this shrub; and it is readily increased by planting pieces of the root four or five inches long in a rich soil,—burying the tops of the roots a couple of inches. Yours, *An Amateur. New-York, Dec. 15, 1843.*

CUMBERLAND SPICE APPLE.—Some of our friends who write in the western journals, are entirely correct in saying that this apple is distinct from the *White Bellefleur*, so well known in the western states. We were in error, in placing it as a synonym in our work on fruits.

The truth is, that although we have been familiar with the *Cumberland Spice* for years, and have had many bushels of the fruit in our own garden, we are not familiar with the *White Bellefleur* (or *Bellflower*,) of the western states. It is very rarely seen in the eastern or middle states; and we have received no less than three different apples under this name from the west. The *Cumberland Spice*, growing in our grounds, has been several times pronounced synonymous by good judges from the west. But we are now convinced that it is a totally different fruit; and as soon as we can clear up the doubts about the different sorts, known under the name of *White Bellefleur*, we shall rewrite the description of the two fruits.

MR. ERNST, of Cincinnati, has just sent us a paper on this subject; but he follows us in considering the *Cumberland Spice* identical with the *White Bellefleur*. We shall refer to the subject again,—remarking that the *Cumberland Spice* is always decidedly conical, and has always a short stalk, set in a shallow cavity; making it quite distinct from the *White Bellefleur*.

CULTURE OF THE CAMELLIA.—I have perused, with much pleasure and benefit, Mr. BECAR's article on the Camellia. It is, as you state, a real practical article. There is one statement in the article which I think may tend to mislead, in some measure, beginners in growing the Camellia. That is the *temperature*. I have always found that heat was more to be avoided than cold. The Camellia is not so much afraid of cold as some think. In fact, it will bear a good deal of frost; but much freezing and thawing destroys the flower buds. If they were kept about the freezing point, or a little below it, all winter, it would not injure them in the least; it would only retard their flowering, which is desirable where there are plenty of plants, to have some in that state, so as to have a succession of flowers for a longer time. My study is to keep the house as near 40° as I can with fire heat; (if much above that point, they flower with me too fast;) and with the sun as near 60° as I can. It will some days go as high as 70° or more, as we have sometimes the thermometer at zero and a piercing wind, and a bright sun, so that no air can be given. In such a case, I find a light shading beneficial; as bright sun and a high temperature soon destroy the flowers. I have a fine flower of double white, yet hanging on the plant, and looking well, which I was afraid to cut to put in a bouquet on the first instant, under the mistaken idea that it might fall to pieces.

As regards the mode of heating, no method, in

my opinion, is better than a combination of hot water and the smoke flue, both as regards the rapid production of heat, and economy in the consumption of fuel. To come to anything like a just conclusion, the quantity of fuel consumed, the space heated, and the general temperature outside, must all be taken into consideration.

I am making a more close observation on those points (than formerly,) this winter, with my largest house, and may give you the result at the close of the winter. [Which we shall be glad to receive. ED.] Yours sincerely, *J. Wilson. Albany, January, 9, 1849.*

[The Camellia flowers finely, and remains longest in bloom, when grown at a comparatively low temperature. But with most amateurs, like Mr. BECAR, the great point is to have a fine display in the *early* part of the winter; and his success in this way leaves nothing to be desired. ED.]

SEEDS OF FRUIT TREES.—There are a very few seedling fruits, out of the great number grown, which are worth the place they occupy, as compared with those which are propagated by budding and grafting; and no man should ever think of relying on these for the supply of fruits for the family. Still every man desires to know how to propagate the different varieties of fruits from the seed, that he may be able to supply himself with stocks, if he chooses, on which to graft or bud those he may select for his own culture.

The seeds of the apple, pear, and quince, may be treated substantially alike. Those of the first may be taken from the fruit itself, or, if more convenient, washed from the pomace at the cider mill, as soon as possible after the juice is extracted. The cider mills in these parts are very few, and it is much more common to obtain them from rotten apples. This may be done by mashing them in a plentiful supply of water, and running them through a sieve by which the pulp will be carried off, and the seeds retained. Pomace may be washed by macerating in water, and then running it through a long spout, when the seeds will fall to the bottom, and the refuse matter pass off. This is quite easy, when there is a small spring of water with a fall, or even a pump to be used. Pear seeds are more difficult to manage and should be taken from the fruit as soon after it is well ripened as convenient. The seeds of the poorer sorts, such as the common Choke pears, are most plentiful, and best.

The seeds of the apple, pear, and quince, may be planted as soon as washed out, in good, moist, deep, and rich soil, where they will vegetate freely with the ensuing spring. Those of the pear are much the most difficult of all; and the young plants are the most tender and precarious.

It is of very little use to plant pomace or rotten apples, and not at all to plant rotten pears. Not one in a hundred, if in a thousand, will come. It does not destroy the vitality of these seeds to dry them and keep them over; through we have

found them more difficult to vegetate than those planted in time. They are often kept dry for several years, and then sown with success; though we have found them more difficult to vegetate than those planted in time. They are often kept dry for several years, and then sown with success; though a proportion of them [a large proportion] will always in such cases fail.

Pears and apples are ready for the bud the second year, provided they receive a good growth, and are well treated.

Though quinces may be grown from the seed, a better way is to use the cuttings. We have been nearly as successful with them as with those of the currant; and they may be propagated in this way indefinitely.

The stones of the peach, cherry, and plum, after being taken from the ripe fruit, should be immediately planted in the seed bed, when they will make their appearance on the following spring. It is sometimes recommended to put cherries into sand, and keep them till spring before planting out. This is an unsafe mode; from the fact that they are liable to start before being planted; and when this is the case, their removal is their destruction. If the stones of either of these fruits are allowed to become dry before planting, they will not open again, though exposed to the frost and wet of winter. There will be exceptions, and only such, to this, among the peach stones, but none, or next to none, with either of the other named fruits. The vital powers of a peach seed are not destroyed in many years by being dried, and if the stones are broken, the dried ones may be grown; but without this care, not one in a hundred will germinate.

After standing the first season in the seed beds, all these fruits should be removed to nursery rows, setting them therein about one foot or fifteen inches apart, having taken the precaution to cut off one-half the length of the tap root. The peaches will be ready for the bud the first season, and the others the second. [Peaches are usually planted in the nurseries in the spring, and budded in autumn—the stones having been buried in the ground the winter previous, and taken up and cracked before planting.—*Ed.*]

Some prefer grafting all these fruits, with the exception of the peach; but budding is so much easier, and quite as sure, that it will probably be adhered to instead, both by nurserymen and those who cultivate for themselves; though the former, as a saving of time, will practice all the usual modes of propagation.—*Prairie Farmer.*

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ALLEN'S TRETTISE ON THE VINE.—The first edition of Mr. ALLEN's treatise on the culture of the grape, received a notice in the Horticulturist, which was no doubt heartily responded to by all whose experience enabled them to form an opinion on the subject. Probably the only regret expressed concerning it, was that the author had not drawn more largely on the rich store of expe-

rience from which he had condensed his thoroughly practical and common sense remarks. The general expression of this feeling has doubtless led to the publication of the present enlarged edition, which contains such a collection of essentially useful matter as to make it, beyond all question, the most valuable work for the American cultivator of the grape, whether native or foreign, that has ever appeared in print. The necessity for such a treatise, adapted to the climate and soil of the United States, has been seriously felt by cultivators who have relied on the works of English writers, and have found by experience how much their systems have required modification, to adapt them to this country. Our native vines particularly require a mode of treatment entirely different from any that is practiced abroad; yet so conflicting have been the opinions expressed as to the best methods of preparing the ground, planting, training, pruning, &c., that the novice in the art has often found himself at his wit's end to decide between so many plausible theories, offered by different writers, each insisting upon his own with a pertinacity only equalled by certain theologians, physicians and politicians. The sound common sense with which Mr. ALLEN discusses these theories, is such as to make his work invaluable to the novice, and scarcely less important, perhaps more interesting, to the experienced cultivator, who will here find a rich collection of the experience of others, carefully detailed and commented on by the author, with a willingness to give full weight to their opinions, even when opposed to his own, which must inspire the fullest confidence in the fairness and honesty of his statements. The amount of labor in studying the works of others, and examining and testing the truth of their theories, which the work displays, cannot fail to excite the admiration of the reader.

The first portion is devoted to the culture of the grape under glass. The frontispiece is a beautiful view of a span roof grape house, belonging to Mr. ALLEN, of which a detailed description is given, containing the exact dimensions, materials and manner of construction, with a minute estimate of costs. Similar details are given of other structures, both for forcing and cold-houses, with such directions and estimates as would alone be worth far more than the cost of the book to any one about building any kind of a grapery or greenhouse. The various modes of producing artificial heat are described and illustrated by plans. The fullest details of the management of the cold-house and forcing-house are given, with a journal of the latter, kept by Mr. Allen, from the time of beginning to force (Dec. 20th,) till the ripening of the fruit. A list of more than 100 varieties of foreign grapes is given, with the characteristics so far as known of each; a large proportion of which have been proved by Mr. Allen in his own vineries. This is of very great value to any one about planting, and is entitled to the careful consideration of the American Congress of Fruit Growers, in pre-

paring their catalogue of fruits to be recommended for general cultivation.

The directions for the culture of native vines are not less satisfactory than for those under glass. The author's experience with them has not been so extensive as with the latter; but he has collected a great amount of information from the most experienced cultivators in various parts of the Union, and added many very sagacious remarks on the different modes of cultivation and management.

In conclusion, we have an exceedingly interesting discussion of the subject of borders and manures for vines, beyond all question the most important item in the whole process of vine culture. It seems that the use of animal manures, in the preparation of the border which Mr. Allen advocates, has been objected to of late by English writers, and has elicited some critical remarks from Mr. Hovey, who denounces the whole system as "quackery." It is not the first time that an old established system has been thus attacked, and some patent, short-hand method recommended in its stead, which has been found, on examination, to amount to the same thing as that which it would supersede, but for the most part less simple and natural. To which system the term "quackery" is most applicable, the public will decide; but I respectfully suggest to horticulturists, as well as physicians, that it is a very awkward weapon to handle,—being almost always double-edged, and for the most part had better not be used in discussions which are honestly intended to elicit truth.

Mr. Hovey objects to the use of animal manures, in the preparation of the border, but recommends a compost of old sod and topsoil with thoroughly rotted stable manure and ground bones, and then an annual top-dressing of stable manure and guano. This amounts, in the end, to the same thing as Mr. Allen's system, with the additional labor of the annual top-dressing. Guano is, in its effects, the same as animal manure; but if the latter, in the form of carcasses of animals, bones, &c., is freely mixed with the border, *in such a position that the roots of the vines will not reach them till the flesh, fat, &c., is reduced to a proper condition for their consumption*, they will then furnish a constant supply of nourishment for a long series of years, without the necessity of any top-dressing. The objection of Mr. Hovey and of many English writers, whose opinions are quoted at length, seems to be that fresh animal manures, ("carriage,") are not in a state to be consumed by the vines. In this opinion, Mr. Allen entirely concurs, as he insists upon the condition which I have emphasised above. I believe, and think Mr. Allen would agree with me, that when practicable it would be better to have the necessary decomposition effected beforehand; for no one can suppose that the flesh of animals can serve in a fresh or putrid state as food for plants. But few cultivators, about to plant vines, can af-

ford to wait for this decomposition, and I should feel no hesitation in adopting Mr. Allen's plan; first, because the roots certainly would not be drawn towards it till it was in a condition for their consumption; and secondly, because I have seen the theory confirmed by practice in many instances where the vines had been exposed to all the risks to which it is asserted such treatment would render them liable, yet manifesting, by their healthy appearance, that they were provided with the best possible nourishment. The carcass of an animal is so offensive and disgusting an object, that nature seems to bid us, in the most imperative tone, and under the severest penalty, to put it out of the reach of the senses; and the only mode of doing so, is to bury it in the earth; and in the whole wonderful system of nature's economy, we know of nothing more beautiful than this provision, by which she forces the animals which have drawn their subsistence from the vegetable world, to give back their component parts, to become the food of what they have fed upon, and thus to spring again into life under new and beautiful forms. The flesh is presently changed to the richest mould, eagerly sought by the roots of the vine; and the bones, which are slower of decomposition, are soon enveloped in a net-work of fibrous roots, whose ends fasten themselves like leeches upon their surface.

Since the first publication of Mr. Allen's treatise, I have heard surprise expressed by several cultivators at his advice, that the foliage should not be syringed after the buds had burst, and the vines were tied up to the wires. In corroboration of his advice, I can certify that, for two seasons past, we have had an opportunity of observing its results in two houses, in which not a drop of water has been thrown on the foliage throughout the time of growth, and we never saw more healthy and vigorous shoots and leaves; and in one of these houses, where syringing had formerly been practiced daily, and where the vines then suffered much from mildew, no appearance of that disease has been seen since it was omitted.

I would particularly impress upon growers of the grape the remarks of Mr. Allen upon the points by which the quality of the fruit is to be distinguished. So common is the idea that the size of the bunch is the criterion of excellence, that everything else seems to be sacrificed to it; and I have more than once seen enormous bunches displayed at horticultural exhibitions, of which, in reality, the growers should have been ashamed. The two points which should first be considered in determining the quality of this fruit are, first, the size and evenness of the berries; and second, the colour, which is invariably an indication of the flavor. These being equal, the size of the bunch is next to be considered; but as a general rule, the medium sized bunches are far superior, in these essentials, to those enormous clusters which are often filled with unequal sized and poorly coloured berries.

I should be pleased to notice some of the very interesting experiments, of which Mr. Allen gives us the details; but we have already extended our remarks to a much greater length than I originally intended, and I will conclude by expressing the hope that the author may receive the reward to which he is so richly entitled, of finding an extensive demand for his work. Yours, *A New-Jersey Subscriber*.

VINEYARD PROFITS.—In my letter, published in the *Patent Office Report*, several errors occur, of misprint, and one of my own mistakes, that require correction. I have erroneously described the Herbmont Grape. It has a light coloured wood, with a blue tinge. The Lenoir description, as there given by me, is the Herbmont; and the description of the latter describes the Lenoir. The Lenoir does not succeed here. The Herbmont is hardy, and of great excellence, both for the table and for wine.* It should have an open, porous soil, where the water can sink freely, as it is subject to rot. At my vineyards, in a stiff clay subsoil, it rots badly. In my garden, it seldom rots. I am made to speak of "Spanish Mansinella wine." It should read, Manzanilla. I erred in saying that the York Madeira was the same as the Schuylkill Muscadell. It is a smaller, and, I think, an inferior grape.

By Mr. WELLER's letter, in the Patent Office Report, I discover that 2000 gallons of wine may, in North Carolina, be made from an acre of the Scuppernong Grape, and the wine sold for \$4 per gallon; \$6000 clean profit, from a single acre of vines! We have never yet made more than 1000 gallons from an acre, and this is a rare occurrence; and the same would not yield over \$1000. What makes it more singular is, our wine is made from the Catawba Grape,—the bunches often weighing 1 lb., and in one instance 24 oz. Yet the Scuppernong is a sort with small bunches, generally bearing from 2 to 8 berries only. We find it in great abundance on the Mississippi, where it is called the "Muscadine." 2000 gallons to the acre, according to Mr. W., would appear to be the average crop. It is true, the expense of cultivation in North Carolina is great. "\$1000 per acre." Four times the average price of wine from an acre with us. Again, where the Carolina yield is 2000 gallons to the acre, the cost of the sugar, indispensable in the manufacture, is \$1000! But this is a trifle, where the wine brings \$8000! The Scuppernong juice appears to be a singular article.

To make even a Hock wine, which we all know is a dry, hard wine, you must [according to Mr. W.,] put *three pounds of sugar* to the gallon of juice! One-half of this sugar, to our poorest juice, would be certain to give us a rich, sweet, ladies' wine, resembling Sweet Mahmsey. But flattering as these prospects are, I would advise our vine-

dressers to give a preference to California, or to be content with our present stock of grapes, and not introduce the *Scuppernong* into their vineyards; as I am fearful the result would prove the truth of Mr. WELLER's observations, that his is "a theory on a large scale." One thing is certain; the Scuppernong grape and wine are not favorites in the west. Respectfully, *N. Longworth*.

[We have examined Mr. WELLER's letter in the Report referred to, and agree with our correspondent, (who is by far the most experienced vine-grower in America,) that Mr. W.'s views are extravagant. "Three pounds of sugar to a gallon," would make a *cordial*, not a dry wine. ED.]

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PLANTING ORCHARDS.—*Friend Downing*:—Though late in the season, we have just finished preparing the ground and holes for a new apple orchard,—the weather and ground being fine.

The lot has been well manured, and planted with potatoes the two past seasons, and very deeply ploughed* before "digging the holes." These were dug from four to five feet square, and two feet deep,—throwing the surface soil separately from the clayey subsoil. We then hauled a full horse cart load, for each tree, of rich earth; the gradual deposit of years from the action of washing rains near our barnyard, and filled the holes nearly full of this and the surface soil, mixed preparatory to setting the trees,—throwing aside the subsoil entirely. Previously to filling in this earth, we made the *bottom* of the holes the depository of all the filth and trash we could find,—night soil, the refuse animal matter of our annual butchering house, old mortar, oyster shells, old shoes, iron, &c. &c.; being glad of an opportunity of burying them out of sight, with the hope, also, that they would be in some degree serviceable to the young trees. These we shall now proceed to plant, if the weather continues open; and if it should not, everything will be ready for an early spring planting.

I know it may be said, that this is matter of little or no interest to the readers of your paper generally; and I only allude to it, mainly, through the selfish consideration of making it the occasion of soliciting your opinion of the method pursued, for the benefit of myself and other beginners in fruit culture. I might add—the trees are some of the first fruits of our nursery experience; two summers' growth—from seven to nine feet high—equal, perhaps, for our purpose, to older and larger ones!

But the main purpose of my writing was to call attention to a more important matter, and to ask for light upon the subject.

In taking up trees this fall, I notice in a chance one, that some of the roots will be full of excrescences, or warts, and covered with a minute white woolly insect; and that some of them find lodgement on the trunks of the trees, in the partly

* The most delicious American wine we have yet tasted, was a bottle of Herbmont, from Mr. Longworth. ED.

* As deep as could be ploughed without a subsoil plough.

closed wounds made by pruning. As the trees seemed vigorous I paid little attention to the subject, until another nurseryman called my attention to the subject; and stated, that not being able to supply the demand for apple trees, he had been at several nurseries in this state to purchase, and was hard set to get a supply, because so many proved diseased in this way, and that thousands had to be thrown away. Since this, a young friend of mine has returned from Virginia, where he had sold and delivered several thousand trees, grown at one of the largest nurseries of the apple in our state; and he informs me that his trees were very generally so; and that he was not aware that the appearance was at all prejudicial to the health or value of the trees; nor did the propagator of them seem to be aware of their hurtful nature.

Can this insect be the "woolly aphid," described in your *Fruits and Fruit Trees*, page 66? And if so, what can nurserymen do to get rid of a pest which, *unfortunately*, is by no means "rarely seen?" I have detected the presence of the insect much the most frequently on trees which grow in a gravelly, or slaty soil, and seldom on trees growing in a mellow loam. Respectfully, &c., J. Fulton, jr. *Chester county, Pa., Dec. 14, 1848.*

P. S. Am much obliged for your selection of late varieties of the plum and cherry. But what of such varieties as Blue Imperatrice, Late Duke, Rumsey's Late Morello, Buttner's October, Bigarreau Tardif de Hildesheim? A word about these?

[We are always glad to hear of such thorough orchard planting.]

The little insect you speak of is *not* the woolly aphid. If nurserymen would use wood ashes plentifully, in preparing the rows for their stocks, they would not be troubled with it; and we recommend a shovel full to be mingled with soil, and applied directly to the roots of all your trees so affected when you are planting.

The sorts of fruits you inquire about, are excellent; but their qualities have only been proved in a few localities, and we cannot therefore recommend them for general use. The next session of the *Congress of Fruit Growers* will enable us to lay the general experience of the country, regarding new varieties, before the public. Ed.]

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NOTES ON FRUITS.—*Dear Sir:* In my communication in your last number, it reads, when speaking of the great variety of pears at Boston,—"Why not, from their 1,200 varieties of pears, throw away the 1,080 worthless ones?" It should read, 1,180; for I did not suppose more than 20 of them were really first rate. But I may err; for I find that you must have some splendid pears of which we have never heard. For a writer (Dr. VALK.) in your Nov. number, in selecting 35 of the best kind, does not include either the White Beurre, Seckel, or Washington. His taste

for apples must greatly vary from ours; as the "Pennock's Red Winter" is one of the selected kinds. We deem it unworthy of cultivation; and not only inferior to 50 of the best old varieties, but to all of our new seedlings, that we deem worthy of cultivation. I wrote to several old horticulturists in Philadelphia, in relation to the shape of the Hudson Strawberry. There is but one reply; the substance of which I give you from a letter of Messrs. Landreth & Fulton: "The Hudson Strawberry of this city is not a *necked* fruit; and this fact is noted in Johnson's Dictionary of Gardening, revised by our Mr. Landreth." I trust you will consent to yield the *neck*, at the same time that you admit that pistillate strawberry plants never change their character. I have never yet seen a fruit of the Hudson with a neck. A chance fruit may assume that shape. [How do you get over the fact, that Mr. ERNST, of Cincinnati, finds his Hudson *necked*? That the Hudson frequently grows without a neck we admit; but that, whenever it is not grown in a rich soil, or the berries produced are extra large, it is a necked fruit, *here*, we shall always contend on the evidence of our own senses; having tested the Cincinnati Hudson, and found it the same as ours, we have no longer any doubt. Ed.] It is here considered the most valuable of all strawberries, and is more cultivated than all others. Mr. ABIGEIST brought this variety to our town some 30 years since, from Philadelphia. He was the only individual, in that day, who was aware of the true character of the strawberry plant; and kept his secret here, as he had done for years in Philadelphia. He made a handsome independence by the sale of this fruit alone. They then commanded from 25 to 50 cents per quart. His secret known, and they sold from 5 to 10 cents.

On what principle does the Buffalo convention recommend that the Golden Russet should be called the Bullock's Pippin? It is certainly a Russet, with a golden colour. But I see no resemblance that it bears to our Pippins. If its name must be changed, I would prefer to see it have its old Jersey classical name of *Sheep's nose*; as, in shape, it resembles the nose of that useful animal. Yours, with regard, N. Longworth. Cincinnati, Nov. 29, 1848.

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CHEROKEE ROSE FOR HEDGING.—We were about to write an article on the use of the Cherokee rose for hedges, when a correspondent favored us with the following from the pen of THOMAS AFFLECK, Esq., which first appeared in the *New Orleans Commercial Times*. It will be read with interest:

"Fencing timber is becoming scarce through all of the early settled parts of the south. Many, a very great many planters find a difficulty in putting their fences, annually, in proper order; and not a few have not the means of doing so, but have to risk their crops under fences that offer a very insufficient protection. And even

where the material is to be had, and that without any unusual cost of hauling, the annual expense of making and repairing fences is immense. All of this it is in our power to do away with, and that without difficulty. *Hedge with the Cherokee Rose.* In Adams and Wilkinson counties, Miss., there are scores of plantations completely and most effectually fenced in with this plant. No animal, whatever, larger than a rabbit—and he must creep cautiously—can pass under or through it, after the fourth or fifth year, if it has been reasonably well attended to. It will even confine the negroes to the plantation, or at least compel them to find egress at the gates. It forms a beautiful feature in the landscape, with its rich, glossy green leaves, summer and winter—and in the early spring is eminently beautiful, with long, pendulous wreaths of the whitest of all roses.

There cannot be an objection offered to it, for this purpose. Now is an excellent time to make such improvements. Cotton is too low to make it an object; and rice and sugar command such prices that the planter can very well afford to bestow a portion of his labor on work of so much consequence. This, too, is the season of the year to plant—from the 15th of January till the 1st of March. Remove the fence; grub and clean up the old fence-row; break it up *thoroughly* with *more than one* ploughing and harrowing; if too poor to yield fifty bushels of corn to the acre, open a deep, wide furrow, and fill it with rich compost, or cow-pen scrapings, etc.; throw a couple of furrows back, and harrow effectually. The fence may now be re-set, if necessary; better if it can be tended with both plough and hoe. At every 2½ feet distance in the hedge-row, open a hole with the spade, set in two or three cuttings, replace the earth, press it down with the foot, and the work of planting is done. Tend just as you would a row of corn or cotton. The cuttings should be fifteen inches long, made from the shoots of last year's growth—the stouter the better. They must be put *fully two-thirds of their length* in the ground. Next fall or winter, instead of covering up the shoots with earth, as many do, cut them off within a foot or so of the main stem, and the plants will throw out stronger shoots the next year. If the land is poor, the hedge-row should, at the same time, have a pretty good top dressing of compost, or cotton seed, etc. If, after the cuttings have had a couple of ploughings and hoeings, a quantity of corn stalks, saved for the purpose, or leaves from the woods, be spread carefully along each side of them, so as to keep the ground cool and moist, they will make double the growth they would without it. Four years, with such care, will produce an excellent fence. It is better not to allow the scions or shoots to run up, and cover the rail fence, but each fall to press them down and cut off the stragglers, by which means the hedge will be much more compact and close, and will occupy less space. No

trees, bushes, or briars, must be allowed to grow. *Southern Cultivator.*

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UNFRUITFUL PLUM TREES.—*Dear Sir:* This part of the country, as you probably know, is blessed or cursed with a very light sandy soil. I may say *blessed*, because it enables us to turn everything into market gardening,—the spring crops come in so early and so fine; and I may say *cursed*, because we are so bothered, past endurance, with all manner of insects, that harbor in light soil.

Well, what I want to say most is, that we can't raise *plums*. Peaches, apples, pears, grow and yield first rate crops; but the plums all drop off the trees before they are half grown. I have tried all the remedies for curculio; they may do in a neighborhood where these creatures are scarce, but not here. The insects will sting my plums, and the plums will fall off. Now, will you or your correspondents tell me what I must do? or must I "give up the ship?" Yours, *A Pine-barren Subscriber. New-Jersey.* [If our subscriber will fence in a small spot adjoining his hog-pen, plant his plum trees all in that spot, 10 or 12 feet apart, and let his hogs "have the run" of the enclosure from March to September, (excepting when the fruit is ripening,) he will get good crops. Ed.]

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PRUNE DE ST. JEAN.—*Dear Sir:* I notice in the article on forcing plums, in the December number, a query of yours, whether the Prune de St. Jean is the Jaune Hative. Thinking I might possibly do somewhat towards answering it, I venture to trouble you with a line.

I have cultivated a plum as the "St. Jean" for some years. The tree from which I obtained the buds is standing in a garden in this town, and was received from France about the year 1837, under this name.

It is very productive. The fruit is fine, ripening before the Morocco, and is distinct from any other with which I am acquainted. I made no exact memorandum of it; but if my recollection serves me, it answers more nearly to your description of the Royale de Tours than any other. Branches of the St. Jean *very downy*. (I notice, in your fruited branches of R. de T., smooth, and in the last editions, downy.) [The latter is correct. Ed.]

As I never could find the name in any catalogue or pomological work, I supposed it to have been wrongly named. I thought highly of it at first, and propagated it in my nursery; but soon found it quite too tender to be *profitable*, and so dropped it, as *hardihood* is an indispensable requisite *here*. It is as hardy as the *Royale Hative*. If you think it may prove a desirable acquisition, I shall be happy to supply you with scions.

The remarks of "A Young Planter," in the same number, are quite to my taste. The great want now seems to be a knowledge of the *stock*

and soil best suited to each variety; and I cannot but hope that the labors of the standing committee of the late convention will be directed, in no small degree, to this end. Respectfully yours, S. L. Goodale. *Saco, Maine, Dec. 8, 1848.*

REMARKS.—We find, by reference to *Liegel's* work on the plum, that the Prune de St. Jean is a distinct variety,—"a blackish-blue plum, of the size of the 'Gros James de Tours,' and one of the best early plums. The twigs are pubescent. Ripens the end of July and beginning of Aug."

Mr. KNEVELS, in a note lately received, remarks that "this is probably either the Morocco or the Early Orleans. In the L. H. Society's Catalogue, it is marked as an 'outcast,' from whence I conclude, either that the society had it incorrect, or that the climate of England is not as congenial to the plum as that of Germany, or our own. This inference is supported by the low grade they assign other fine plums."

We may add, that there is little doubt that the Prune de St. Jean, (or St. John's Plum,) is a distinct variety; and as Mr. Goodale's description appears to correspond with the German one, he has probably, the correct fruit. Though too tender in the climate of Maine, it will, no doubt, be perfectly hardy here, and may, from its earliness, prove a decided acquisition.

HORTICULTURE IN IOWA.—*Dear Sir:* I received the November number of the Horticulturist last night, and read it after the rest of the household were in bed. Ten—twenty dollars—no sum of money could buy the satisfaction and enjoyment of that midnight hour. The account of the Horticultural Festival, among other things, much interested me.

We are endeavoring to do something in the great work of horticulture, in this (to you) *far-off-land*, though we are only following you in the east, at long intervals with "unequal strides." Nature has done everything for us. The soil—all ready for the spade and plough—needs no manures to render it fertile. The climate is not surpassed, in the same latitude, on the Mississippi. We are at the level of the greatest valley of the greatest river in the world; but we want the master workman to take these advantages of nature, and marshal them into greater order and loveliness. We hope you will sometime take a "puff" up this great "father of waters;" and if you do not pronounce the site of this little village by nature the most beautiful spot in all Uncle Sam's vast garden, then we will frankly confess that our partiality wholly misleads our judgment.

We have just organized a society here, the proceedings of which will be sent to you by our secretary. You will see that the subscribers of the Horticulturist were active in getting up the meeting; and the gentlemen interested have been kind enough to make me president, which I think an indirect compliment to you, as all my knowledge is the result of three years' reading, with

some practice, of your precepts. We have made your work our standard, and wish now a copy of the latest edition of the "Fruits and Fruit Trees," coloured.

Of course, a state of only a few years' growth, not yet "twenty-one," indeed not half out of minority, cannot be expected to have made much progress in fruit culture. But our season of enjoyment has already begun. Of peaches and apples we have many. Pears have been tried sufficiently to prove that some "outcasts" from society with you are destined to hold the front rank in the circle of fine fruits among us. Dr. WEED, of Bloomington, (25 miles east of this place,) took some Bartlett's to St. Louis, which were pronounced superior to anything ever seen there. Our plums cannot be surpassed; but, as yet, we have failed with cherries. They grow so rapidly that they are killed in winter. We are now experimenting with buds on the common red cherry, which is quite hardy, and hope by this means to succeed. * * * Your obedient servant, *Jas. Grant. Davenport, Iowa, Nov. 20, 1848.*

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PACKING TREES AND HEDGE PLANTS.—What is the best, and safest, and cheapest mode of packing fruit trees, and especially Osage Orange hedge plants, to send long distances, where no moss can be obtained? An explicit answer would much oblige your friends hereabouts. Yours, *J. W. Turner. Illinois College, Jacksonville, Illinois, Dec. 28, 1848.*

ANSWER.—Where trees are to be sent on long journeys, the whole secret of success in transportation, consists in keeping them in a cool and dormant state, and away from contact with fresh air. Hence, experienced packers, abroad, always use but little moss, and that perfectly dry, and put up their trees in tight boxes or bundles. If they are sent with a packing of wet moss, they almost invariably grow on the way, and half or more are lost; while, on the other hand, for short journeys, damp moss is the best of all substances.

Where, as Prof. TURNER suggests, no moss can be obtained, the following is one of the best modes: Take up the trees before the buds swell, and dip the roots several times in liquid compost of loam and cow-droppings, until a coating an eighth or a tenth of an inch thick is formed all over the roots. Then lay them in the shade and allow them to dry perfectly.

Next, take a box of the proper size, put a layer of dry straw in the bottom, then a layer of young trees, (such as hedge plants,) and another layer of straw, till the box is full. If the trees are large, you can only fill in the void spaces with straw. Press the whole down as closely as possible, (so that a box of moderate size will hold several thousand stocks, or small hedge plants,) and nail the lid down firmly. Finally, make the box as air tight as possible, by stopping the seams or cracks with pitch, a mixture of tallow and

rosin, or whatever substance, of like nature, is cheapest and most convenient.

If you have to pack in *bundles*,—a less perfect mode for long distances,—it cannot be done safely without dry moss, or some other substance that will not heat; unless you can envelope the roots with coarse india-rubber cloth, so as to shut out the air.

Cuttings and grafts, when sent to a long distance, should be enveloped in pieces of oiled silk. This preserves them from the action of the air, and they are taken out quite fresh in appearance.

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HORSE YOKE FOR ORCHARDS.—At the State Agricultural Fair at Auburn, in 1846, a horse yoke was exhibited by E. H. DANFORTH, of Busti, Chautauque county, and a premium of \$3 awarded it. I have never since been able to learn where the article can be had. I think it would be of very great utility in ploughing an orchard; as the plough would be drawn by a chain between the horses, and the whiffletree dispensed with entirely.

Have you seen it in use, or do you know anything about it? [Will some of our subscribers give an answer? Ed.] T. G. Y. Walworth, N. Y., Dec. 15, 1848.

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ERRATA.—In Dr. PAUL's article, in our last, p. 315, for "inhibition" read "imbibition;" and 318, for "their mucilage" read "thin mucilage."

ANSWERS TO CORRESPONDENTS.

SEA COAST ORCHARDS.—*A Young Farmer*, (Hartford, Ct.) In your orchards near the sea coast, plant the following apples: Baldwin, Roxbury Russet, Domine, Porter; and the following pears: Beurré d'Arenberg, Vicar of Winkfield, Heathcot, Bartlett.

PLUMS.—C. S., (Newport, N. Y.) Plant the following plums on your sandy soil; they will bear where others fail: Lombard, Cruger's Scarlet, Autumn Gage, Bleecker's Gage. Try, also, the Downer's Late cherry, which will thrive in almost any exposure, and is a first rate fruit.

GRAPES.—J. B., (Sackett's Harbor.) The Clinton grape is not equal to the Isabella, but is a very valuable sort for northern latitudes; ripening where the season is not long enough for the Isabella by a fortnight. The berries are little more than half the size of those of the Isabella.

ORANGE ORANGE HEDGES.—*A Subscriber*, (Martin's Ferry, O.) There is no objection to planting the seed where the hedge is to grow; but it is generally planted in rows three feet apart in the nursery ground, because the young plants are more easily and economically cultivated in a quarter by themselves than when scattered over a long line. One year old plants will answer for planting out, if the soil where they are to be set is good. The soil you describe is admirably adapted to this plant.

EVERGREENS.—E. L., (Sandy Springs, Md.) If

your Silver Fir, which has lost its *leader*, is a young tree, you may induce it to form a new one by cutting back all the shoots in the uppermost row (where the leader should start,) to within an inch of the main stem. Cover the wound with *shellac solution*, and a new upright shoot will probably start out. If the tree is so old that long side branches are formed where the leader was lost, the matter is past remedy.

SCIIONS.—I. B. G., (Terre Haute, Ind.) Scions, seeds, &c., can be safely sent to Cincinnati, St. Louis, or any of the larger western cities, by express. The native shrub you describe, is the *Azalea nudiflora*, common in the woods in the middle and eastern states. The nurserymen who grow ornamental shrubs can supply it. It will go safely packed along with fruit or ornamental trees.

PEAS.—The most successful way of raising early peas, that we have ever tried, is that recommended at p. 481, vol. 1, of this journal. We tried it last year, and gathered a crop ten days in advance of those from the earliest sowing out of doors. The Prince Albert is one of the best early varieties.

DISSOLVING BONES.—W. B., (North Andover, Me.) A strong oak barrel will do. Weigh the bones, break them in pieces, pour over them half their weight of boiling water, and then add, slowly, half their weight of oil of vitriol, (sulphuric acid,) stirring the mixture while pouring in the latter. For further details, see p. 93 of the present volume.

GRAPERIES.—Johnson, (N. Y.) If your house is a span-roofed one, it may stand in almost any position, fully exposed to the sun; but a north or south line is perhaps, on the whole, preferable to one east and west.—W. B., (North Andover.) "South-southeast" is preferable to "west-south-west."

ROSES.—A. R., (Cincinnati.) Auburnon, Marchesa Bocella, and Crimson Perpetual, are three of the most constant blooming Perpetual Roses.—W. B. Sweet briars make excellent stocks for roses. The imported roses are mostly worked on the "dog-rose." The common *Boursault*, (i. e., Purple Noisette, Maheka of some gardens,) also makes a good stock, and is easily propagated from cuttings.

REPORT OF FRUIT CONVENTION.—*A Member*, (Philadelphia.) We understand the Report of the N. Y. Convention will be ready for distribution in a few days; and copies will be sent to all the members. Vexatious delays have been experienced in printing it.

* * Correspondents who are *subscribers*, will hereafter find replies to any questions within the scope of this journal, in this department, (unless otherwise requested;) and all queries, put in a *brief shape*, and sent to us *free of postage*, shall receive attention. They should be sent, if possible, in the early part of the month. Ed.

MASSACHUSETTS HORTICULTURAL SOCIETY.

BUSINESS MEETINGS.

Saturday, Dec. 23, 1848.—President WILDER in the chair. The Chairman of the Committee of Publication presented the report of the Publishing Committee, and stated that there might be some few bills which may have been omitted, and may vary the same some few dollars.

Voted, To accept the report; and that the Treasurer be authorized and directed to pay such bills as may be presented by said Committee.

Voted, The thanks of the Society to the Committee of Publication, for the very acceptable manner in which they have discharged the arduous duties which devolved on them.

Voted, That the President, (M. P. Wilder,) the Treasurer, (Sam'l Walker,) the Chairman of the Finance Committee, (Josiah Stickney,) and F. W. Macouddy and Otis Johnson, be a committee to settle with the Treasurer of Mt. Auburn Association.

The Publishing Committee laid on the table copies, entitled "Report of the Twentieth Annual Exhibition of the Mass. Horticultural Society," and it was thereupon

Voted, That the Librarian cause to be prepared, directed and mailed, a copy to each member of the Society; and that he also, under direction of the Corresponding Secretary, forward copies, in like manner prepared, not exceeding twelve, to each and every horticultural and agricultural society that may be deemed advisable, and that the Librarian charge and be allowed a reasonable compensation for said duty.

Saturday, Dec. 30.—The President, M. P. WILDER, Esq., in the chair. Reports were received from the several Chairmen of Awarding Committees on Fruits, Flowers, and Vegetables, containing detailed lists of all the premiums and gratuities awarded by the Society during the year 1848, together with the names of the persons receiving them. [These reports have been sent to us for publication; but their great length precludes their publication this month.]

The following gentlemen were, on recommendation of the Executive Committee, elected Honorary Members:

Hon. James K. Polk, President of the United States.
Gen. James Tallmadge, President of the Am. Institute.
Hon. Rob't C. Winthrop, Speaker H'se of Representatives.
Hon. Joel Parker, LL. D., Royal Professor of Law at Harvard College.

Caleb Cope, Esq., President of Penn. Horticultural Society.
Lawrence Young, Esq., Pres. Ky. do do.
Col. Joel Rathbone, Pres. Alb. and Rensselaer Hort. Society.
Thomas Allen, Esq., President St. Louis do.
James W. Thomson, M. D., Wilmington, Delaware.
H. W. S. Cleveland, Esq., Burlington, N. J.
Professor A. Agassiz, Cambridge, Mass.

Rev. James Means, Dorchester, Mass.
Hon. Edmund Burke, Com'r of Patents, Washington, D. C.

Saturday, Jan. 6.—The first stated meeting, for the year, was held at Horticultural Hall this day.

Col. WILDER took the Chair, and introduced his successor, SAMUEL WALKER, Esq., with the following happy and very appropriate remarks:

Gentlemen of the Massachusetts Horticultural Society:—The duty of introducing my successor, your President elect, devolves on me under very happy auspices. Your suffrages have fallen on a man who is worthy of the office, and well qualified for it—on one who has served the society in various capacities, with fidelity and ability; and whom you now reward with the highest honor in your gift.

Gentlemen, I rejoice with you in this event, and in the prosperous condition of our association—in the friendship and unanimity that prevails among us, and especially in an opportunity, before taking final leave of the chair, to thank you once more, most sincerely, for the distinction which you have bestowed on me—a distinction for which, at my first election, I had not presumed to hope, but which having been so often conferred, and by those whose approbation I highly appreciate, I shall ever regard as above any earthly preferment.

During my administration, it has been my desire and endeavor to discharge the duties of my office with impartiality, and with a view to the best interests of the society. How well I have succeeded I leave for others to judge; but

whatever success may have attended these efforts, for you, my official associates, with whom I have had such long and pleasant intercourse, and from I have received uniform and cordial support, I shall ever entertain an affection next to that for family and home.

Gentlemen, may a kind Providence bless you, in your persons, in your families, and in all your laudable efforts to extend the usefulness, and to increase the resources of this institution; and may he who is now to occupy this chair, prove more worthy of the confidence and respect you have so liberally bestowed on me.

Mr. WALKER replied in the following very appropriate address:

Gentlemen of the Society:—The very kind manner in which my friend, Col. Wilder, has introduced me, and his determination, if it were possible, to lay me under further obligations by his courtesy, and his avowed approbation, of my past services, happily afford me an opportunity to state how much I value his friendship—the pleasure it has given me to serve the Society under his administration, and to tender to you, gentlemen, my thanks for the honor you have conferred upon me.

I cannot plead that I am ignorant of the duties, or the responsibilities of the office to which you have elected me, but, in the same spirit of frankness permit me to say, that I have many misgivings as to my ability to discharge them, in such a manner, as may be acceptable to you, gentlemen, or that I should be able, in any way, to aid, or promote, the progress and prosperity of the Society.

When I turn to the records of the Society to read the doings, and remember the talents of those who have heretofore occupied this chair, and more particularly the eminent practical services of my immediate predecessor, I have good reason for fear as regards my own services. But, with you, gentlemen, I have been accustomed to labor; it is therefore almost unnecessary for me to say, that for the future I shall hope and expect to receive the same indulgence you have so often and so kindly extended to me, during a period of nearly twenty years. With these expectations I enter upon the duties assigned to me, with a determination on my part, to co-operate with you in as liberal an administration of the Society, as may be consistent with strict economy and its future interest.

I shall take an early opportunity to submit for your consideration and action, an outline of such measures as shall appear to me calculated to promote the further consolidation and usefulness of the Society.

United as we now are as members, still encouraged by the co-operation of friends, and enjoying the liberal benefactions of our honored donors. I trust our future will be full of usefulness, and that our efforts may advance the object for which we are associated.

Gentlemen:—When the time shall arrive that these new relations, which are forned to-day, shall be dissolved, may it find us the same united and prosperous Society—strong in mutual friendship and esteem.

The meeting was then organized by the appointment of Rev. DANIEL LEACH, as Secretary pro tem.

Hon. B. V. FRENCH, Vice President, presented the following resolutions, which were unanimously adopted:

Whereas, MARSHALL P. WILDER, Esq., has, during a period of eight years, discharged the duties of President of this Society to the satisfaction of its members; and

Whereas, Mr. WILDER's administration has been marked with energy and zeal in disseminating horticultural science; and

Whereas, We believe the interest of the Society has been greatly advanced by his services, and its influences extended by his practical skill, and the many specimens exhibited by him from his garden and conservatory, of almost all the varieties of Fruits and Flowers; and

Whereas, We also fully believe that the public, as well as the members of this Society, are indebted to him for his practical and successful labors; therefore

Voted, That the thanks of this Society be tendered to MARSHALL P. WILDER, Esq., for his services during the period he was President thereof; and also

Voted, That a committee of three be appointed by the Chair, to purchase a piece of plate, not exceeding in value

ONE HUNDRED AND FIFTY DOLLARS, and to cause a suitable inscription to be placed thereon, and to present the same, with the above vote of thanks, to Mr. Wilder, in behalf of the Society, as a tribute of the regard and esteem of its members.

Messrs. B. V. French, C. Newhall, and J. S. Cabot, were appointed this committee.

Mr. C. M. Hovey presented the following vote, which was unanimously adopted:

Voted, That the Society's gold medal be presented to Gen. H. A. S. DEARBORN, the first President of this Society, for the essential services he rendered to the science of horticulture and the interest of the Society, during the period he presided over its affairs; and that a committee of three be appointed by the Chair to carry out the above vote.

The Chair appointed Messrs. C. M. Hovey, C. Newhall, and E. M. Richards, as the committee.

The following resolutions were presented by Dr. E. WIGHT, which were unanimously adopted:

Resolved, That this Society hold in high estimation the eminent attainments of JAMES E. TESCHEMACHER, Esq., in the various departments of literature and science.

Resolved, That the thanks of this Society be tendered to Mr. TESCHEMACHER for his valuable services as Corresponding Secretary for many years, and as Chairman of the Committee of Publication.

Resolved, That as a token of approbation and respect, and in consideration of these services, that a piece of silver plate, of the value of fifty dollars, be presented to Mr. TESCHEMACHER, or such other article, of like value, as he may please to designate.

Resolved, That a committee of three be appointed by the Chair to carry these resolutions into effect.

Messrs. Wight, Stickney, and Dutton, were appointed this committee.

A committee of arrangements for the annual exhibition was elected, consisting of the following gentlemen:—Joseph Breck, Chairman, F. W. Macondry, D. Haggerston, A. D. Williams, jr., J. S. Cabot, Otis Johnson, P. B. Hovey, jr., E. Wight, J. F. Allen, Josiah Lovett, Capt. Austin, A. D. Weld, H. W. Dutton.

A letter was received from the president of a horticultural society in Iowa, soliciting copies of the Transactions of this Society; whereupon it was voted, that the Corresponding Secretary be empowered to send copies of the Transactions of the Society to all applications from horticultural societies, and that the Recording Secretary make an annual report of the number of the same.

The following gentlemen were elected members of the Society:—Daniel T. Curtis, of Boston, and Joan H. Bufford, of Roxbury. Adjourned for two weeks.

PENNSYLVANIA HORTICULTURAL SOCIETY.

The stated meeting for January was held on Tuesday evening, 16th. The President in the chair. The display was, for midwinter, unusually fine. Mr. Buist exhibited a collection, not in competition, of choice plants; among which were eight select varieties of Azaleas, *Porphyrecoma lanceolata*, three *Daphne rubra*, *Cineraria* seedlings, *Amaryllis*, *Eranthium* and others. The President's gardener, a fine collection, consisting of Camellias, *Epidendrum*, *Oncidium*, *Gongora*, *Rhododendron arboreum*, *Azalea*, *Cypripedium acaule*, and etc. Peter Raabe, a table of Camellias, choice varieties—*Azalea indica*, *Chorozema varium*, *Primula*, *Hyacinthus*, etc. John Lambert's gardener, a number of *Hyacinthus*, *Primroses*, *Cyclamen*, etc. Designs of cut flowers were very handsome. A cone, standing in a moss vase, by Mr. Dundas, gardener, was admired. A design of a fountain, by the President's gardener, was beautiful. Five moss baskets, and a number of hand bouquets, completed this display. Of fruits, Mr. Hancock exhibited St. Germain and Beurre Easter pears; John Perkins, twenty varieties of apples; and Wm. Parry, apples. Vegetables, as usual, were very fine.

The following were the premiums awarded on this occasion:

By the Committee on Plants and Flowers—For the best and 2d best three hot-house plants, for the best three green-house plants, and for the most interesting collection of plants in pots, to Ben. Daniels, gardener to Caleb Cope. For the 2d best collection of plants in pots, to Peter Raabe; for the 3d best collection, to Maurice Finn, gardener to John Lambert. For the best design of cut flowers, to James Biset, gardener to James Dundas; for the 2d best, to Ben. Daniels. For the best basket of cut flowers, to Robert Kilvington; for the 2d best, to Peter Raabe. And special premiums to Maurice Finn and Ben. Daniels, for bouquets.

By the Committee on Fruits—For the best pears, (St. Germain,) to Thomas Hancock. For the best apples, (Newtown Pippins,) and for the 2d best, (Jersey Greenings,) to John Perkins.

By the Committee on Vegetables—For the best display, and for the 2d best display, by market gardeners, to Anthony Felten. For the best display, by amateurs, to Ben. Daniels, gardener to Caleb Cope; for the 2d best, by amateurs, to Maurice Finn, gardener to John Lambert; for the 3d best display, to Wm. Johns.

The committee mentioned, with pleasure, fine specimens of apparatus, mushrooms, and bush beans, in the display by Mr. Cope's gardener; radishes and tomatoes, in that by Wm. Johns, which are remarkable for the month of January.

The Secretary reported, that Wm. S. Vaux had presented some potatoes, which he had received from J. Randolph

Clay, Charge d'Affairs of the U. S. at Lima, Peru, which had been raised on the Andes. On motion,

Ordered, That the thanks of the Society be tendered for the gift, and the tubers referred to the appropriate committee.

The President announced the appointment of the following committees for the ensuing year:

Committee for Establishing the Names of Fruits—Dr. Wm. D. Brinckle, Thomas Hancock, Elhanan W. Keyser, Dr. Thomas McEwen, and Robert Buist.

Committee for Establishing Premiums—Thomas Hancock, Dr. Wm. D. Brinckle, Thos. C. Percival, Robert Kilvington, and John C. Engleman.

Committee for the Distribution of Seeds, &c.—Thomas C. Percival, Jacob Snider, jr., and John Rutherford, jr.

Committee of Finance—Isaac Elliott, John R. Brinckle, and Chas. Ellis.

Library Committee—Robert Buist, Tho. P. James, Dr. Tho. McEwen, William McGuigan, and James Biset.

Committee to Superintend Exhibitions—Robert Buist, chairman. Dr. W. D. Brinckle, E. W. Keyser, P. Mackenzie, T. C. Percival, Tho. Hancock, P. K. Gorgas, Dr. T. McEwen, J. Ritchie, I. E. Mitchell, G. Zantinger, T. Clark, R. Price, Dr. I. H. Bradford, J. D. Fulton, H. B. Blanchard, G. B. Deacon, H. A. Dreer, E. Meredith, I. R. Brinckle, N. Knowles, Wm. Sinton, P. Raabe, Dr. G. Watson, J. Rutherford, jr., Jno. Dick, W. Burrs, W. Johns, R. Feters, J. C. Engleman, J. Powell, C. P. Hayes, W. S. Vaux, J. Biset, and S. R. Simmons.

Members Elected—Joseph Ripka, jr., Miss A. S. Vaux, and Dr. M. Reeve.

THOS. P. JAMES,

Rec. Secretary.

ANNUAL MEETING.

The annual meeting of the Society was organised by calling Dr. W. D. Brinckle to the chair, and appointing Geo. Zantinger secretary.

The chairman stated the object to be, to elect officers for the ensuing year, which was, on motion, proceeded with; Peter Mackenzie and Chas. P. Hayes, acting as tellers, who reported the following gentlemen as having the highest number of votes for the offices respectively, and whom the chairman announced as duly elected:

President—Caleb Cope.

Vice Presidents—Gen. R. Patterson, David Landreth, James Dundas, and Joshua Longstreth.

Treasurer—John Thomas.

Corresponding Secretary—Thomas C. Percival.

Recording Secretary—Thomas P. James.

THE
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Nothing appears so fully to occupy the attention of our horticultural public, at the present moment, as the culture of FRUIT TREES. Our table is loaded with inquiries, propositions and suggestions,—all relating to this subject. Fruit gardens and orchards, of all descriptions, from acres of strawberries, raspberries and cranberries, to hundreds and thousands of acres of peaches, apples and pears, have been planted from Maine to Texas, within the last year; and thousands of acres more will be planted the coming season.

There are many who think fruit-growing will be "overdone." They point to particular seasons, when the markets have been glutted with poor peaches, and poorer apples, as a proof that it is unwise to plant more trees. But they forget that these occasional excesses in over-production, are the very effect of large previous profits. Messrs. REYBOLD, the great Delaware peach-growers, for instance, make \$10,000 in a single season by their crop of peaches. This immediately induces hundreds to plant large tracts entirely with peaches, as a speculative investment; and for two or three years the two markets of Philadelphia and New-York, at which these speculative growers aim, are deluged with fruit. What is the

result? The regular growers make very little profits, and the speculative growers none at all. A couple of seasons of this kind of disappointment, is enough for the latter. They abandon their scheme, their orchards go down, and the price of peaches rises again to a fair and remunerative profit.

It may always be laid down as a safe proposition, that the market will never be overstocked with really fine fruit. Three-fourths of all the farmers, who grow fruit for market, send it to market in such indifferent order that it brings half price. The consequence is, that the careful growers get double and treble profits. When apples from western New-York, are so abundant in New-York market as to be worth only a dollar and a quarter per barrel, the apples of the Pelham farm,—several thousand barrels in a season,—command readily three to four dollars a barrel. When peaches are so abundant as to be worth only 50 cents a basket, fine samples of Crawford's Late, or Old Mixons, bring two dollars a bushel. What is the inference? Plainly, that if it is worth while to grow fruit for market, it is best worth while to grow only the best, and to grow it in the superior manner. Ten dollars an acre will often cover the cost of superior cultivation, while

the difference in the value of the crop may be an hundred dollars.

What then is the secret of good cultivation? What steps must be taken to ensure success, either to him who wishes fine fruit for home consumption, or regular and abundant crops for market?

Such is the substance of the numerous queries to which we have alluded; and we shall throw out a few suggestions to meet them.

The first secret of success, is to plant only the best sorts.

This would appear to be a matter as plain as a pike-staff; and yet, there are very few planters who carefully attend to it. There is such a passion for novelty and variety in the minds of most men, that they are not content with what is really *known* to be excellent. They must try everything that is *said* to be *better* than excellent. Hence, more than half our fruit gardens are filled up with trashy trees, that have no other merit than high sounding names. Hence, no one is satisfied with twenty pears, though this may comprise all those of the very finest quality. They must have an hundred, at least; and the consequence is that, at last, they gather five bushels of most indifferent fruit to a peck of the finest quality, when they might have gathered the latter only. But only time and trial will cure this mania for making every private orchard and garden a pomological specimen ground. The feeling is so rife at present, that a writer, or a society, that recommends a list of only a dozen or two fruits of each sort, is looked upon as behind the age. Now the real truth is just this: that when a fruit garden contains the Green Gage and the Jefferson plum, the Seckel and the White Doyenné pear, the Early Harvest and the Newtown Pippin apple, the George the Fourth and the Grosse Mignonne peach,

it contains the concentrated excellence of a catalogue of a thousand varieties. The question, therefore, after this, is not how to get *better* sorts, but how to get a sufficient number of other fine sorts, to make out the season from early to late; and having done this, we think it far better to multiply twice, ten, or twenty times, really excellent sorts, of established reputation, than to plant all sorts of novelties in an orchard or fruit garden where enjoyment or profit, and not curiosity, is the object in view. Zealous amateurs are now abundant, who are engaged, in a most praiseworthy manner, in importing, collecting, and testing everything that can be heard of. There is a great interest and pleasure in this, as we have satisfied ourselves by years of trial; but it is a vast waste of time, money and ground, for those who only want a supply of the finest fruits, to be ransacking all the new catalogues for "eminent varieties." Let them find out what are ten of the *best* sorts of any such fruits as the apple and pear, and plant those ten sorts till their grounds are filled, rather than hunt for fifty or an hundred varieties.

There is something very fascinating in a name. It appears to be very hard for a novice, who is making out his order from a grand catalogue, to give the cold shoulder to Duchesses, Kings, and Princes Royal, and order a tree, with such a plain looking name as the Dix, or the Heathcot. That huge, coarse apple, the Gloria Mundi, (glory of the world,) has owed its existence, in hundreds of gardens, solely to its superb title; and the "Green Sugar of Hoyer-swerda," has disappointed, in its treacherous, rotten flavor, dozens who had prepared their mouths for something akin to genuine nectar and ambrosia. Nay, a friend of ours, who planted a tree of the "Great Citron of Bohemia," assured us that he ex-

pected to eat something very nearly akin to the richest bride's cake !

The second secret, is to plant them upon the right soil, well prepared.

So much has been written on the proper soil, for various fruit trees, that we will not go over the subject again here. We may, however, remark that there are two trees not yet well understood, as regards the most suitable soil for them.

These are the pear and the peach. We think the pear cannot, unless with very rare exceptions, be successfully grown in any soil that has been long cultivated, without first restoring to that soil the potash, phosphate, and lime, that have been taken from it by continuous cropping. And, with very rare exceptions, we think it will be found that, in our dry climate, it is only upon naturally deep soils, or where the subsoil has been broken up, so as to form a soil 18 inches in depth, that these trees will be uniformly healthy and productive.*

It seems to us that there is still a prevalent error, regarding the best soil for the peach. The impression prevails, that the peach is finest on light sandy soils. It is quite true that the growth of the tree is rapid, and its culture easiest, upon such soils. But a careful comparison of peaches grown in various soils, has convinced us that the flavor and beauty of the fruit are incomparably higher in a mellow loam, than in a lighter and more sandy soil.

The great importance of deepening all ordinary soil, by trenching or subsoiling, is now so generally known, that no planter, of the least information on the subject, thinks of planting an orchard, or even a tree, without this preliminary step. In no climate is it so important as ours ; and in

no country, does it so fully repay, in the quadrupled health, vigor, and productiveness of the tree, the necessary cost and trouble which it involves.

The third secret, is to supply them with the proper food.

And this leads us to repeat here what cannot be repeated too often,—that the best general compost for fruit trees, is a mixture of *peat and ashes*. These two substances alone contain every addition to the soil necessary to the growth of fruit trees. There is hardly any part of the Union where swamp peat (the black, decayed vegetable matter of low grounds,) cannot be had very cheaply ; and there are few parts of our country where wood ashes, either in a fresh or leached state, cannot be had at a moderate price. Now this peat, as it comes from the swamps, is so saturated with acid that it is almost worthless as a manure ; but mixed with ashes, at the rate of five bushels of fresh ashes, or ten bushels of leached ashes, to a waggon load, it becomes nearly equal to cow manure, and far more beneficial to fruit trees, because the compost contains not only vegetable manure but lime, potash and phosphates ; in other words, the mineral manures, so absolutely essential to the production of fine fruit.

Taking this mixture of peat and ashes as a general manure for fruit trees, let us turn it into a compost more especially adapted to the different fruits ; for chemical analysis shows a different composition in the apple, and the pear, the plum, and the grape, etc.

To every cart load of the composted peat and ashes, after it has laid a fortnight, we would add two bushels of *air-slaked* shell lime, or any other good pure lime. This would be the compost for *apple trees*.

To every cart load of the peat and ashes, we would add half a bushel of ground or

* On the other hand, in very deep vegetable soils, (as in some parts of the western states,) the trees should be planted on little hills or mounds, 18 inches high, to prevent over rapid growth, and too succulent wood.

dissolved bones,* and two bushels of leached ashes, (or five pounds of potash, dissolved in water.) This would be the compost for *pear trees*.

To every cart load of the peat and ashes, we would add half a bushel of lime, half a bushel of ashes, and a peck of salt. This would be the compost for the *plum tree*.

To every cart load of the peat and ashes, we would add a bushel of lime, one of ashes, and half a bushel of gypsum or plaster. This would be the compost for the *grape-vine*.

To every cart load of the peat and ashes, we would add two bushels of leached ashes. This would be the compost for the *peach* and *cherry tree*.

We do not intend to give these as the best formulas for composts for these different fruit trees. The ingredients are by no means so exactly proportioned as even the present state of chemical knowledge would enable us to make; but they contain the essential elements, in proportions which we have tested; and we have avoided making

them in the least complex, because we have always noticed that the majority of cultivators are reluctant to adopt what is not easily understood and carried into practice.

The good effects of such composts as these, instead of common manure, will be very speedily seen in all fruit gardens and orchards where they are used. Their use will as certainly bring about thrifty growth, healthy foliage, and fair and abundant crops, as careless and ignorant culture and manuring will the reverse.

We will only add, in conclusion, that where an orchard or garden has been neglected for some time, a very heavy dressing of such compost, say a coat two inches thick, should be applied at first. But where it is the practice of the cultivator to use the compost every year, it is only necessary to sprinkle enough over the surface every spring (turning it under lightly with the spade or plough,) to cover the surface half an inch thick as far as the roots extend.

ON THE MYRTLE TRIBE OF PLANTS.—[**]

BY DR. WM. W. VALK, FLUSHING, L. I.

IN all the contributions to the pages of the Horticulturist, I presume it has been, (and is,) the design of its correspondents, to combine in their communications, matter both useful and interesting to the many thousand readers of this popular periodical. That such has been the case with myself I know; and trusting that the little already done shall have answered wholly, or partially, to fulfil the intent thus indicated, I shall, as often as I can find or make the

* Ground bones are only to be had in the cities; but every cultivator in the country may collect sufficient bones in his neighborhood, and dissolve them by following the directions on page 93 of this volume.

opportunity, continue to offer *something* for the reader's consideration, upon the various subjects appertaining to horticulture. In doing this, I purpose availing myself of whatever materials I already possess, or that may come into the line of appropriation, from every source obtainable in the gardening literature of the day; consequently, my communications will be sometimes either wholly, or to some extent, original, or, again, entirely selected. If, in a greater or less degree, it shall be necessary and proper to modify a selected paper, by additions or omissions, there will be added

to its title, in brackets, *two* asterisks; if wholly selected, *one*; and if entirely original, no such indication will appear. Against the charge of "false quotations, misrepresentations, &c.," I shall ever be ready to answer, where such charge is made by a correspondent of reputation and veracity; for I cannot admit that any other has the least claim to notice. Hoping that I am now fully understood, I proceed to the development of the subject which heads this paper.

With an exception in favor of the *rose*, that universal charmer, the theme of the poet, and the pride of every garden, we are not aware of any plant which is better calculated to elicit pleasurable associations than the myrtle. As one of the loveliest of evergreens, elegant in its growth, graceful in its figure, its leaves are not only beautiful, but they abound with a fragrant essential oil of peculiar quality; and its *flowers* of dazzling white, pencilled with light airy stamens, each supporting a beautiful anther, are absolutely "redolent of sweets."

This charming evergreen is so retentive of its brilliant foliage, that, to quote the expression of Dr. Lindley, it seems as if it "were intended to make us forget that winter has power over vegetation." It is not our intention, however, to make the beauties of this species the chief subject of the present article; we select it as the *type* of an order, from which we hope to point out a few of the characteristics of what is now, *par excellence*, designated—"The Natural System of Botany." We do this with the greater pleasure, because the members of the tribe are generally plants of great elegance, and further possess a peculiarity of structure which may very happily be adduced to explain the construction of this *natural* system, and to point out *how* it dif-

fers from the *artificial* classification of Linnæus.

The study of botany is as enchanting as it is useful; therefore, it is a pity its pursuit should be hampered by difficulties; but so it is with everything of man's invention, and we must submit. Yet we counsel not that those who have been educated in the Linnæan system shall abandon it. The rather do we say—"go on; you have proved by experience the facilities it affords, the light it communicates; but let not prejudice arm you against *that* classification which embraces and teaches the physiological structure of the vegetable organization."

To those students whose opinions are still immature, we recommend the impartial investigation of the elements of both systems. If but a mere insight into the leading principles of the *natural* system be desired, enough will be found in Dr. Lindley's "Ladies' Botany," and in the work of the "Society for the Diffusion of Useful Knowledge." If more than an insight is required, the student must make himself acquainted with the principles of the *science of physiological botany*, and expect to encounter difficulties and perplexities in his progress at every step. If, on the other hand, he only wishes to discriminate genera, to be able to classify plants, and give them "a local habitation and a name," we bid him go to the classification of Linnæus. There he will find light, precision, and arrangement, almost perfect, while the *natural* system even now, though improved by the zeal of a Lindley, is unfinished, unsettled, revised, added to, and altered perpetually.

But, putting aside all merits and deficiencies in *that* system, let us at once proceed to the elucidation of our subject, as at first proposed.

The myrtle tribe is one of the *orders* of the natural system. Its title is *Myrtaceæ*, and it is found in the first *Grand Division*, in which all the plants are of a vascular structure (*vasculares*), in contradistinction to the second grand division, (*cellulares*), wherein the stems of the plants are entirely cellular, and destitute of woody fibre and tubular vessels. The first division contains two great classes; our *Myrtaceæ* being in the *first* class, because its seeds have *two* lobes,—whence the term *Dicotyledons*. This great class is again subdivided; and in the first division are all those plants which have a calyx and corolla, (*Dichlamydæa*.) Again, this first subdivision has three *sub-classes*, viz: 1st, *Thalamifloræ*, wherein the petals and stamens are attached to the receptacle, (as in the *Ranunculus*.) 2d, *Calycifloræ*, wherein the petals, and often the stamens, are seated on the sepals or calyx leaves, as in most fruit trees; for example, in the *Pear*, *Plum*, *Peach*, *Almond*, cum multis aliis. 3d, *Corollifloræ*, wherein the corolla is monopetalous, inferior, or below the germen, and the stamens attached to it; as, for instance, in *Snopdragon*, *Foxglove*, *Thyme*, *Rosemary*, &c.

Now, let any one acquainted with botanical structure, take a flower of the myrtle, and he will, after a short examination, be convinced that it must be referred to the *second* sub-class of the *first* subdivision; because it has a great number of stamens not attached either to the petals or receptacles; because the petals are seated on the calyx, and therefore it has both calyx and corolla; in short, that it belongs to the 12th Linnæan class,—*Icosandria*.

But the order *Myrtaceæ* is not solely founded upon the number or position of the stamens, and therefore contains many genera *not* in the 12th Linnæan class; which

circumstance will be further noticed. But first, let us endeavor to find out the *number* as well as the *position* of the order; for in so doing, one of the imperfections of the system will be detected.

When in 1829, the *Encyclopædia of Plants* appeared, *Myrtaceæ* formed the 63d order of the sub-class; and the order itself was again subdivided into *three tribes*. The 1st, *Baccata*, contained eleven genera; the fruit or seed vessel being a berry. The 2d, *Capsulares*, comprised nine families, having *capsular* seed vessels. The 3d, *Lecythideæ*, with three genera, differed from the two preceding in this,—the fruit was either a drupe, (a fleshy, *succulent* rind, containing a hard stone in the middle,) or a vessel enclosed within a *leathery* rind.

The genera of distinguished beauty and excellence were seen in the first tribe, viz., *Myrtus*, the tree myrtle, and *type* of the order, with ten varieties of the common myrtle—hardy tenants of the green-house: the lovely but captious woolly-leaved, pink-flowered myrtle of China; and that most fragrant stove-evergreen, the pimenta-leaved myrtle,—*M. pimentoides*.

2. *Pimenta vulgaris*, or true allspice, or Jamaica pepper. These two plants are rarely seen in our hot-houses, or those of Europe. The first is much the most fragrant of the two, and more easily reconciled to our artificial climates.

3. *Psidium*, the *Guava*. A most interesting family; and the purple-fruited, or Cattle's guava, is perhaps the most perfect and graceful evergreen that an amateur of plants can desire, or possess. It may be raised from seeds, by cuttings, or by layers; grows freely, fruits early, and yields eatable berries the size of a large plum,—resembling, except in colour, a small orange. Any climate in green-house, vinery, or stove, not reduced below 45° of Fah., suits

it well; and, in addition to its many excellencies, the fruit will make a delicious jelly. In the flowers, it is obviously a true member of *Myrtaceæ*.

The pomegranate, *Punica*, formed one of the eleven genera (of *Baccata*;) but it now constitutes an order by itself,—*Granatææ*.

In the second tribe, *Capsulares*, we found those ornaments of the conservatory,—*Metrosideros*, *Melaleuca*, and *Colothamnus*, with their beautiful tufty pencils of gorgeously tinted stamens; the first belonging to *Icosandra Monogynæ*; the other two to *Polyadelphia Polyandriæ*; the pretty small leaved *Leptospermum*, are more nearly allied to the true myrtles.

So much for the guidance of the *Encyclopædia*. But if we now turn to the catalogue of the *Hortus Britannicus* of 1832, we find that *Myrtaceæ* has become the 84th natural order; consequently, no fewer than twenty-three intermediate orders have been added to the list. A great change has also been effected in the arrangement of the order; it no longer consists of three tribes, distinguished by the structure of the seed vessels, but of six tribes, founded upon bases, thus: 1. *Chamalanchiæ*, denoting the dwarfish, angular figure of the plants. 2. *Leptospermia*, the similitude of the genera to their type, *Leptospermum*. 3. *Myrtææ*, the same, &c. &c.

The list of the orders in the first grand division was increased to 210; and these are divided and subdivided into tribes, subtribes, and the like, to an extent absolutely alarming to the memory. As new plants come in, new orders must be originated to contain them, till we are ready to exclaim,

“What! will the line stretch out the crack of doom?”

These eternal alterations, changes of positions, and new creations, form the great blot of the system; a huge stumbling block in the way of the inquiring many, who

cannot fail to see that the twenty-four simple classes of Linnæus, imperfect though they are, furnish a locality for every new introduction, to which it can appropriately be referred, without violence to the characters of its inflorescence.

To what conclusion, then, do we arrive, but that the Linnæan system is a simple, well regulated whole,—perfect in its structure, and easily available? It therefore is, and ever will remain, the *vade mecum* of the many. The natural system is, on the contrary, unfinished, unformed, composed of disjointed materials, grand in its object, comprehensive in its design, but so hampered with difficulties that it is likely to remain “a sealed book, a hidden mystery,” the system of the learned few.

We started at a certain point, and have now got back to it again; therefore, we shall quote the characters which distinguish and illustrate the order *Myrtaceæ*.

“*Dotted leaves*, with marginal ribs, and an *inferior* ovary and *single* style, are the great features of *Myrtaceæ*. They are all fine evergreen shrubs or trees, generally bearing white flowers, and in the first section, (tribe,) producing fleshy fruit, &c. The volatile oil contained in the little reservoirs of the bark, the leaves, and the floral envelopes, gives these plants a fragrance, which has caused them to be celebrated by the poets of old. There is also a considerable proportion of the *astringent* principle in these plants, very obvious in the bark of the pomegranate. The leaves of the Chilian myrtles, and some other species, have been used as a substitute for tea.” (Ency. Plants, p. 106S.)

We said that *Punica* now constituted an order by itself—*Granatææ*. “This order has but one genus, the well known pomegranate,—differing from *Myrtaceæ*, in the leaves being *destitute of the pellucid dots*,

and the seeds enveloped in a pulp." (Hort. Brit., p. 513.)

The reader has now before him a fair, and pleasing specimen of the plan; from whence a sort of inference can be drawn, of the general arrangement of the natural classification. The subject may be again

resumed, and other examples cited; in doing which, we hope to present to the lover of nature some more of those exquisite productions which charm the senses, and fail not to instruct the understanding.

WM. W. VALK, M. D.

Flushing, L. I., Dec. 30, 1848.

NOTES ON THE GROWTH AND HABITS OF PEARS.

BY WILLIAM REID, NEW-YORK.

SIR—If you think the following remarks, on some varieties of pears, worthy of a place in the Horticulturist, they are at your service. I trust they may be the means of inducing some of the practical cultivators, and others interested in fruits, to give us brief descriptions of the habits of growth, and other peculiarities characteristic of any varieties of fruits they may cultivate. I, for one, shall always read such notes with a great deal of pleasure; and I have no doubt there are many other readers of the Horticulturist who will feel equally interested. There are a great many sorts of apples, pears, plums and cherries, that always show a strong growth; there are many, again, quite the reverse in habit; some, again, will have drooping branches, others erect; and so far as I have been able to judge, I believe that we have no two varieties of trees that grow exactly the same. If my supposition is correct, when we receive a variety of fruit under a new name, bearing a resemblance to one we already possess, we have only to graft or bud a few of each in the same row, and if there is any difference in their growth it will be discovered at a glance; but should there be no perceptible difference, I think it would at least be safe to mark "doubtful" to the new kind.

But, to come to the point in a few words, what I would suggest is this—to endeavor to ascertain, from the different cultivators through the country, the habit and growth of the tree, as well as the quality of the fruit, &c.; whether it is a strong or weak grower; whether it grows erect or drooping. By taking as a criterion for pears, *Duchesse d'Angouleme* as a strong grower, *White Doyenné* as a medium, *Winter Nelis*, *Beurré d'Arenberg*, and *Seckel*, as slow growers, (these being sorts generally known,) we have then no difficulty in judging of the habit of almost any variety. Examples among apples may be taken in the same way, viz., *Baldwin* and *Rhode Island Greening* as strong growers, *Newtown Pippin* and *Porter* as weak growers. The following varieties of pears include the principal kinds that are of a *drooping* or *weeping* habit when young, so far as my memory serves me. There may be some few kinds of the same habit among the new sorts, lately introduced, that I am not so familiar with, as from recollection to be able to say anything about them at present; but I will, at some other time, send you a few remarks on other varieties that I am familiar with, of *upright* growth:

Maria Louise, I will begin with first, as I think this variety might be styled *Queen of*

the Twisters! It will frequently, when young, have the appearance of hoops, by the branches turning entirely round. There is very little symmetry about trees of this kind; when growing, they will generally extend themselves every way except upwards, and to get tolerable trees it is necessary to stake them, or *graft them on stocks three or four feet high*. It is, nevertheless, a hardy, vigorous tree, and a great bearer. As regards the qualities of this fruit, there seems to be a difference of opinion. I have eaten it, equal in flavor to any variety that is cultivated. I have frequently, again, tasted it and found it to be worthless. The wood is of a gray appearance, and the leaves have long footstalks. It grows well on pear stocks, poorly on quince, but makes very fine dwarfs on *thorn stocks*. If worked *low*, this is a variety that suits the latter stock well.

Winter Nelis is rather a slender, weak grower when young, and generally at three years will not be larger than other varieties, of free growth, are at two. The branches are pendulous, and the tree generally inclines a little to one side, with small, wiry wood; buds sharp pointed, and very prominent, (and will sometimes break off when budding, unless a little care is used;) foliage rather small and delicate. With age, this makes a good orchard tree, and is allowed by most persons to be an excellent winter pear; it varies much, both in shape and size. The tree grows best on the pear stock; but it will also make tolerable trees on quince.

Beurré d'Amalis grows very strong, with large, round, heart-shaped leaves, and a very loose irregular habit, spreading its branches in every direction. The side branches of young trees are generally more or less twining and drooping, although a fine hardy orchard tree. The fruit will

only be appreciated [rather say tolerated, Ed.] by those who have not been in the habit of eating the finer varieties of fruits. The wood is of a rather dark olive colour. The tree grows very strong, both on pear and quince stocks.

A variety of *B. d'Amalis* is cultivated with striped bark and fruit; habit, the same as the other.

Beurré Ranz. This variety seems to have obtained a bad name, and, I think, without having had a fair trial. The only objections, however, I have heard is, it is difficult to *ripen*. I am of opinion that this will yet be a valuable pear for winter, having only partially come into bearing here as yet; it has not had any pains bestowed on it. It has fruited with me two years. The fruit resembles, more than any other sort, that of the *St. Germain*. This last year I had a few specimens; and although obliged to gather them nearly a month before the proper season, I put away in a dry place, and they were nevertheless very melting and juicy, although considerably shriveled. Dry sand or buckwheat chaff, filled in through the boxes or barrels, when putting up such fruit, will greatly help late sorts of pears to ripen and prevent shriveling. The growth of this sort is pretty strong and twisting. Wood of a gray colour, with numerous white dots. The *Beurré Ranz* grows well on the pear, poorly on the quince, but remarkably well on the thorn.

Beurré Bosc. Growth not quite so strong as that of some varieties; but it is what may be called a moderate grower, in the young trees especially. When a year old, the tops will frequently turn down; as, also, in two years old trees, the side branches will twist more or less. Wood of a light gray appearance. This sort makes pretty good orchard trees, but loses much

of its drooping habit with age. It bears singly on the ends of the branches. The quality of this pear is generally allowed to be very good. It grows well on the pear stock, but poorly on the quince.

Vicar of Winkfield is a strong growing, vigorous sort, and is also a great twister, when young, with large, glossy, broad, heart-shaped leaves. It is very similar in habit to *Beurré Diel*, but retains its foliage better than that variety. It produces very fair fruit, of a long, pyriform shape; and when grown on quince stocks, the pears will frequently have a bright red cheek. It is a valuable sort for market,—selling readily; but will only be used as a desert fruit when melting varieties are not to be had. It grows on the pear and quince, and is a particularly good sort for the latter stock.

Passe Colmar is a moderate grower. The wood of young trees is generally of a light yellow appearance. The tops of this variety also turn down more or less, especially on one and two year old trees. On the quince stock, however, I have observed that this habit is less marked. The habit of the tree somewhat resembles that of *Maria Louise*. It is a tolerably good early winter pear, and produces fruit generally in clusters on the ends of the branches. It grows both on the quince and pear stock.

Beurré Diel is a good hardy orchard tree. Branches drooping and twisting more or less when young, and frequently leaning a little to one side on young trees. The foliage is large, the whole habit vigorous, and it is one of the very best sorts for growing on quince stocks. This pear is not always of as fine flavor as it has been represented; but taking into consideration its productiveness, and large size, and fine appearance, it must be ranked, for orchard planting, one of the most valuable varieties.

Hessel is one of those hardy, productive

sorts, that yield fruit in great abundance, and will succeed, sometimes, in soils and climates where many of the *Beurrés* will not. The habit of this tree is only partially drooping. It branches low, and makes a good low spreading tree, with gray wood. It has some resemblance to *Maria Louise* in the wood, but not in the leaves. The tree is less drooping. The fruit is of a fine yellow appearance, with gray dots, beautiful to look at, but lacking juice to make it first rate. It ripens with me in the last of August.

English Jargonelle. This is a well known old variety. The wood has a very dark appearance, and the tree, when without leaves, is mistaken by some, who are not familiar with the wood of pears, for an apple. It is of vigorous growth, and always, when young, leans to one side. The side branches are twisting; leaves large, round, heart-shaped, and often with a downy appearance when young. It makes a large spreading tree in the orchard, and was formerly considered, by English cultivators, one of the best early pears. It does not prove such here, and must give way to other early kinds, of superior flavor. It is, however, a good bearer, but coming into market about the same time as the *Windsor*, or *Summer Bell*, which the aforesaid a good deal resembles, and being of very little better quality than the *Windsor*, which is rather larger and a prodigious bearer; these qualities make it more valuable than the *Jargonelle*. Indeed, there are probably few early pears, ripening about the first of August, which will yield a better profit to the orchardist than the *Windsor*; immense quantities of it being sold in the markets for *baking* pears. This variety is readily known from the *Jargonelle* by its strong *upright* growth. Both sorts grow on pear or quince stocks.

Hacon's Incomparable. This variety I have cultivated for ten years. It has never yet borne fruit with me; and I have observed that, in various places, its growth has been slow, of a crooked, straggling habit, and, unless staked, the tops of the young trees will bend over. I have seen

the fruit several times, and also eaten it; and although highly recommended by English cultivators, it will, I fear, prove of little value here. This sort grows on the quince.

Respectfully yours,

WILLIAM REID.

Murray Hill Nursery, New-York, Jan. 13, 1849.

A VISIT TO SPRINGBROOK, THE SEAT OF THE PRESIDENT OF THE PENNSYLVANIA HORTICULTURAL SOCIETY.

BY JUSTICIA.

DEAR SIR—When your particular friend, Professor J., of Schenectady, was here, the past season, he was greatly surprised that a description of the handsome establishment of CALEB COPE, the estimable president of the Penn. Horticultural Society, had never appeared in the *Horticulturist*. I then promised to send you some rough notes of it, without any embellishment, which I now fulfil, with a recent visit fresh in my mind.

SPRINGBROOK is eight miles north from Philadelphia, on the Bristol turnpike, and near the new depot of Tacony. It is situated on rising ground, commanding an extensive view of the adjacent country, Delaware river, the Jersey shore, and the city. The elegant mansion is surrounded with a spacious lawn, kept in a masterly style; and the pleasure-grounds are enclosed by a light iron fence, about half a mile in length, and studded with many varieties of hardy trees, backed by a natural piece of the most majestic woods,—giving a fine syLVAN character to the place. To the left of this grove is a sheet of spring water, rising on the farm, (which farm contains upwards of 100 acres,) that supplies a powerful *Hydraulic Ram*, diffusing the water over the whole place, supplying reservoirs, fountains,

waterfalls, &c. Connected with the dwelling is a span-roofed conservatory, filled with plants in bloom, including a carriage entrance, under glass, for the convenience of taking up the family in time of rain or sickness. Farther south is another span-roofed house, 32 feet long; one side for Geraniums, embracing 60 of the finest sorts, and the other side for choice fancy Roses, many of them now in full bloom. Connected with this house is another, similar to it, for Azaleas, Rhododendrons, and other showy blooming plants of like treatment. We now sally forth into the flower garden. The flowers are grown in beds and masses, and consist of sorts that are either continually in bloom, or such as are succeeded by others from a *reserve-garden*, producing a magnificent display the entire season. Among them, beds of *Salvia speciosa*, *Plumbago*, *Tweedia vinca*, *Bouvardia* and *Lantana*, were very conspicuous among the more common varieties that are generally grown. Contiguous to the flower garden is the "Cactus-house," 81 feet long, heated by water pipes, and containing a collection of Cactii, far surpassing any other in this country; and for health and beauty of specimens, equal to that which I saw in the "Garden of Plants" at Paris. The

large *Cereus* are trained up the rafters, producing thousands of gorgeous flowers; *Echinocactii*, 9 or 10 feet in circumference; *Monkey Cactii*, 5 feet high; "*Turks' heads*," that are bigger than the sultan's; as well as *Cactii* in the guise of rats and snakes, porcupines and pin-cushions, with every other imaginable and grotesque form,—making a scene entirely unique and wonderfully grotesque.

The extreme end of the house is covered with a splendid *Passiflora alata*, in full bloom. To the right of this is the orangery, 38 feet long, filled with handsome trees, in fruit bearing, of the Orange, Lemon, Lime, Citron, Shaddock, &c. Those trees, grown in large tubs, are picturesquely arranged on the lawn in the summer season. Back of this house, and fronting the flower garden, is the Orchid-house, (or Air-plant-house, as some call it,) 38 feet long, heated in connection with the orangery by hot water. Any description of mine will fall short of conveying a proper idea of this tropical forest and atmosphere. You must not visit us without paying your respects here, to witness a collection of all the choice and rare *Cattlyea*, *Gongora*, *Oncidium*, *Dendrobium*, *Stanhopia*, and hundreds of others, whose characters are entirely new to me, and acknowledged by competent judges to be rich in the extreme. They are attached to pieces of bark, blocks of wood, planted in baskets of every shape, placed on blocks of trees or banks of moss and stone, attached to the wall, or depending from the rafters,—and all displaying their *animated* and beautiful blossoms, in the guise of butterflies, humming-birds, dragons, toads and canaries, with many other fanciful bird, beast and insect resemblances. The scene is heightened in effect by a lovely *waterfall*, dashing with a musical sound over rocks, and falling into

a fanciful but natural looking mossy basin, placed over the hot-water pipes, producing a genial atmosphere of moisture whenever required for those remarkable parasitical plants. The water for this house is everywhere abundant, and at command, from a tank or reservoir that holds over 2000 gallons, supplied by the Ram.

To the south of the Orchid-house is an early grapery, 31 feet long, now pushing forth luxuriantly, and promising, even with the external air at zero, an abundant crop. Along the edge of the walk are apricots, peaches and nectarines, in tubs and pots, in full bloom, and expected to be ripe in May. Adjoining is a later grapery of same dimensions; and then we enter the *Nectarine-house*, 62 feet in length, without artificial heat. I saw it last July, and then beheld such a crop of such fruit as I never before saw,—measured the *Red Roman* nearly *nine inches in circumference!* besides Elruge, Early Newington, Fairchilds, Vermash, Boston, Downton, New White, and others, maturing at different periods, and all grown in perfection. A liberal and regular thinning out of the fruit before stoning is practiced, which leads to the above results of large size, rich flavor, high colour, and a uniform crop. Connected with the Nectarine-house are two houses recently erected, each 30 feet long, heated by water. One of them is planted entirely with white grapes, and called the *White-house*. What a fine picture it will show, when full of ripe, golden, honied fruit. The other is for forcing cherries, plums, apricots, grape-vines, &c., in pots. The upright front of this house is double, having grape-vines planted between the glass; the vines will thereby be excluded from the heat till required to be introduced and trained up the rafters to ripen at any given period. A new and very excellent arrangement.

I will now introduce you to the Culinary Forcing-house, with a low span-roof, 33 feet long, in two departments. The cool department has now in it fit for the table, and has been supplying it since Christmas, with asparagus, radishes, lettuce, kidney or snap-short beans, &c.; and there are in a state of forwardness potatoes, and the following strawberries: Hovey's Seedling, Keen's Seedling, Buist's Prize, and Buist's Early May. The warm compartment has grapevines in pots, showing their bunches; cucumbers, training up the rafters, and near the glass; citron and other melons grow in perfection,—all promising well for an abundant crop. Proceeding towards the flower-garden, the next interesting point, is the Camellia-house, upwards of 60 feet in length. The collection is very select, embracing 106 varieties, selected from the choicest European, Chinese and American sorts. In its centre is a superb *Rhododendron arboreum*, now in full bloom, with many rare and choice Camellias. It would have afforded me pleasure to record the names of the very conspicuous plants and fruits in every department, but it would have extended my notes beyond the ordinary limits of magazine articles. To see one of the specimens, *Acacia pubescens*, a perfect picture, 9 feet high, was well worth an 8 mile ride in a cold day.

But we have not been in the "Mushroom-house," where mushrooms are grown in abundance from November to May, and which is well worth a few moments. The tool-house, that usual receptacle of broken tools, lumber, old pots and pans, is like a well arranged armory. Every article has a place, and in it. The duties of the gardener and his assistants are defined by written rules and regulations; a system which the proprietor has found productive of the best results. There is also a neat

carpenter's-shop; a house for shutters and matts, where they are protected when not in use; and near these are the pits for cauliflowers, salad, and other matters that may be required for the kitchen or table.

The kitchen garden is separated from the lawn and flower garden by the Cactus and Orchid-houses. It covers $1\frac{1}{2}$ acres, is well arranged in beds and terraces, with a large open cistern of water in its centre,—all in excellent order. The quarters are interspersed with dwarf fruit trees, variously pruned and trained, and all in a young bearing state. The collection of pears, &c., is of the most select sorts. Some new kinds are not yet fully proven; but the judicious taste of the proprietor will not allow an inferior article to produce a second crop. Looking from this point to the west, you see the gardener's cottage, on an elevated position, overlooking all the buildings and details, harmonizing with the green-houses. Red brick edifices, you are aware, are unpleasant objects in rural landscape. And we find all buildings here brought into good keeping, by being painted of an agreeable light stone colour. And now, having taken you and your many readers through and under 17,000 square feet of glass, kept on the most refined system of gardening, must bring my notes to a close; only adding, that the plants and vegetables are grown solely for the use of the family. Basket after basket is, however, generously distributed to the sick and the stranger, by the bountiful hand or orders of Mr. COPE.

I must also add, that not a week passes that there are not some new additions to the collection, either from Europe or the public collections of this country; whilst the nurseries of Philadelphia come in for their quota of patronage. Your pages often record the success of the gardener, B.

DANIELS, in taking prizes at our horticultural exhibitions. His industry, intelligence, and excellent management are visibly stamped in every spot and every department of the estate. I will leave your readers to judge if the *horticultural* attractions of *Springbrook* are excelled by those of any other country seat in the Union. All having been got up within six years, without the least flourish of trumpets, but with that quiet enterprise and taste, so

characteristic of the broad brimmed fathers of our city.

I forbear any details of the mansion, dairy, or farm, where 12,000 drain tile have been laid to great advantage, affording ocular evidence to our farmers what can be done to fertilize any wet, unproductive land. I have also overlooked many details and embellishments of the pleasure grounds, till you can realize the effect for yourself. With regards of JUSTICIA.

EXPERIMENTS IN HORTICULTURE—NO. 2.

BY B. B. POUGHKEEPSIE, N. Y.

PEARS.—My grounds contain about six hundred pear trees, comprising ninety varieties. They have been planted successively, some every year, since 1836; although most of them have been planted within the last two years. My first planting was in 1837, and consisted of Bartlett, White Doyenne or Virgalieu, Seckel, Urbaniste, Bloodgood, and Easter Beurré. They were set into the ground by an Irish laborer, after the approved fashion, "like posts." Of course, they grew like posts for a few years, until experience taught the necessity of bestowing extra care and attention, in order to resuscitate them. The Seckel, Bartlett and Virgalieu, now bear tolerable crops of fair fruit; but the Bloodgood has not ripened more than half a dozen pears, and the Urbaniste has never produced even a blossom.

In the spring of 1842, I planted another lot of trees of the same varieties. The holes were dug six feet in diameter and two feet deep. One-third of a load of stable manure was then thrown in and mixed with the soil, which was naturally rather heavy. In 1847, when these last

had been planted *five* years, and the first, *ten* years, I compared them, and found those planted in 1842, to be considerably the largest and finest trees in all respects, and bearing more and better fruit. Since that, I have made it an invariable rule, never to plant a tree of any kind (except peaches,) without preparing the ground thoroughly. It is decidedly cheaper to spend a dollar in planting a tree thus, than to have it planted for nothing on the old system. If a tree is not worth the trifling care and expense of being planted *properly*, it is not worth planting *at all*.

In the winter of 1847, I imported from France, thirty pear trees, on *quince* stocks, two of each, of fifteen choice varieties. They arrived in New-York about the first of January, and remained there in a counting-house until March, when they were forwarded to Poughkeepsie. When opened, although packed in the very best manner, they were much shrivelled, and apparently dead. I caused them to be put into a cellar and kept covered with wet straw until April, and then planted them eight feet apart. Contrary to my expectations, and

the predictions of my gardener, who declared that he was wasting too much time upon "dead Frenchmen," seventeen of them lived, although one of them did not show any active signs of life for upwards of a year; and most of them made but little growth the first season. Last summer, however, they took a fine start, and made a growth of two or three feet. Two of them ripened fruit. One of these was a Williams' Bon Chretien, (Bartlett,) which bore three of the most beautiful and excellent pears I ever saw. They were a clear yellow, with a slight blush on one side, and weighed twelve ounces each. The other bearing tree was marked "Beurré d'Amanlis," and bore three pears a little larger than the others, but not so handsome nor so good. If these latter are fair specimens of the products of dwarf pear trees, I shall never plant anything more of that variety.

Last spring I put out some three hundred pear trees, chiefly on quince stocks. The ground was first trenched twenty inches deep, and well manured with street sweepings,* (which, by the way, I consider the very best manure for fruit trees.) The holes were then dug eight feet apart, and one-fourth of them filled with trees on pear stocks, and the residue with quince stocks. Thus, the pear stocks are sixteen feet apart, and are designed to occupy the whole ground when the dwarfs shall have spent their comparatively short life in the intermediate spaces. They have all grown remarkably well,—our season having been peculiarly favorable. I noticed three Bartletts which ripened fruit. One bore six, another four, and another one, fair, good pears. This no doubt frequently occurs; it is the first instance within my observation, where a pear tree, but two years from the graft, has ripened fine fruit the season

it was set out. They were on pear stocks, and obtained from my neighbor, Mr. NORTH. The dwarfs were chiefly obtained from the nurseries of MESSRS. ELLWANGER & BARRY, Rochester. The trees, although mostly but one year from the bud, were fine and healthy, and came to hand in excellent condition. Not one of them, I believe, has been lost by transplanting. There is, however, a great diversity in their growth; some kinds having grown four feet, and others have not grown as many inches.

The only varieties that have made scarcely any growth are *Louvain panaché* and Swan's Orange. From present appearances, I am inclined to think the last of these will not succeed with me.

Of those which have made a very moderate growth, I enumerate the Beurré Easter, Passe Colmar, Angora, Madeleine, Dearborn's Seedling, Seckel, Bartlett, &c.

The following have made a growth of a foot and upwards: St. Germain, Forelle, Napoleon, Fortune, Bloodgood, Belle de Bruxelles, Doyenné d'Ete, Countess de Lunay, Rostiezer, Fig d'Automne, Colmar d'Ete, Glout Morceau, Summer Rose, and Dutchess d'Angouleme.

The following have grown very strongly, having made an average of from three to four feet of new wood, viz: Beurré Diel, Martin Sire, Chaumontelle Gratioli, Glory de Cambrone, Louise Bonne de Jersey, and *Nouvelle d'Oeuf*. This last is a pear with which I am wholly unacquainted,—not having seen it described in any book, or named in any catalogue of recent date. If it should bear as well as it grows, it will be well worthy of cultivation.

The *blight* gives us some trouble; occasionally taking off a tree or part of a tree in a mysterious and unaccountable manner. My observation and experience leave me in profound ignorance of its cause and cure.

* Street manure,—sweepings of the streets of towns.

Nor have I ever read any satisfactory solution of the problem.

Some of my trees are affected in a different, but equally fatal manner. The bark cracks open, and gradually separates from the body of the tree, until the whole trunk, for two or three feet above the ground, becomes nearly or entirely denuded.

I have at present a row of "Summer Virgalieu" trees, all in this situation. Last summer they bore a large crop of *beautiful*, but entirely worthless fruit; and made no growth of wood. Can this be one of the *decayed* or run out varieties spoken of by Knight and Kenrick? B.

Poughkeepsie, Jan., 1840.

THE USES OF LIME.*

Few gardeners rightly appreciate the value of lime; but we have had opportunities of seeing it applied in so many ways, and for so many purposes, that we feel the necessity of communicating some of them. At this juncture—while we are, in fact, writing—there is a general complaint of mildew among cucumbers, and disease among potatoes. We have seen lime applied in both these cases, with the greatest possible success; but it must be properly applied. It must be applied wherever there is the disease; nothing short of this will do. If any part which is attacked be left, of course that part will not be affected with what does not touch it. In case of cucumbers, we have seen a dredging-box used, and the powdered lime applied under as well as over the leaf, while the steam, which in the morning is like so much dew, is upon the foliage; and the effect has been almost instantaneous. The parts too far gone to recover have dried up, and the healthy portions, however small they may be, have been left; even half a leaf has been seen to live well, while the other has shrivelled up as if it were burned. We have seen the same frame that appeared reduced to mere skeletons of plants, recover so completely in a month, as to be full of healthy plants. Applied with a sieve on the open ground to cucumbers in ridges, some plants perfectly recovered, others never rallied at all. We take this to be accounted for by the disease having made, in some plants, too great a progress before the lime was applied, and that it had not made so much progress in those which perfectly recovered.

[* From the London Hort. Magazine.]

Or it may have been, that the lime only covering the upper surface, the portions of the plant that were, in some cases, covered up, took no benefit, and the disease continued its ravages. Precisely the same effect was produced on potatoes that were affected. The lime was sifted on them while the dew was on them, and all the upper surface got well sprinkled. In most cases, the heart of the plant and the stems received upon the surfaces the powdered lime. A large portion of the crop—indeed, wherever the lime absolutely touched the surface of the stems and foliage, almost instantly dried up as far as the disease went; and we have no doubt that, had it been followed well up, day after day, until all had been sprinkled where they were affected, the effect would have been the same throughout. The crop turned out well, with the exception of those plants which had not been properly sprinkled, and they continued the disease down to the lower part of the stem; but very few were touched, and we took the precaution to place all the potatoes that came from plants still diseased by themselves, that they might be used first. Lime soaked, or rather slaked in water, is efficacious in all possible ways for destruction of insect life. The syringe applied with it to trees infested with caterpillars, soon clears it altogether. Sprinkled on grass lawns, which it whitens till the rain washes it off, it drives the worms down, or brings them to the surface very quickly. Syringing plants which have the bug, or wall fruit trees, (that are sometimes covered with ants, ear-wigs, small caterpillars,) and afterwards with clean water, is of great service; and lime dusted,

or lime water sprinkled, on gooseberry and currant trees, cleans them as completely as if they had never been attacked. Laid round a bed liable to the attacks of wandering snails and slugs, it prevents them from crossing the boundary; but it requires renewal, because its caustic qualities are lost in time. Ploughed into land, or forked into beds infested with grubs, it has the best possible effect! and where the garden is bounded by a hedge, which is the most harboring of all receptacles for vermin, there is no better means of destroying the greater part of them than sousing it well with lime water, by means of the garden engine. There can be no mistake in lime water, for this purpose; because you may let the water take up as much lime as it can, only it must be used clear. Lime is one of the best substances to mix with manures of all sorts; it absorbs that which would be wasted; it disinfects the mass; it makes the most offensive matter inoffensive. A layer of night-soil, and a layer of lime, would be as harmless as so much common earth. It is impossible, therefore, to over-

rate the usefulness of this substance, in the garden or in the farm; and the more the public begin to understand the value of the sewerage of the metropolis, the contents of cesspools and drains, the more will they also recognise the value of that substance which will render the most nauseous of all waste harmless, and prepare it for the earth which requires it. Lime is of such efficacy in the way of disinfecting any disagreeable production, and counteracting infection in every shape, that one of the most early precautions against the approach of contagious disease, is to lime-wash the brick walls of all work-houses and public buildings where the lower orders congregate. It is even said that the brick walls of the chief apartments in union-houses, is not covered with plaster, or other matter, because they should take the lime-white readily; and this hint may not be lost on those who house and provide for many work people during the summer season. Lime-white the walls, and use lime to disinfect anything that might become a nuisance.

ON THE CAMELLIA AS A HARDY PLANT.

BY SAMUEL FEAST, BALTIMORE, MD.

DEAR SIR—In a late number you copy some remarks, on the hardiness of the Camellia, from the *Gardener's Chronicle*, and add that this fine exotic may prove hardy in Baltimore. Dr. EDMONDSON, of this city, has paid much attention, of late years, to raising Camellias from seed; and after flowering, the inferior varieties were planted out in the open ground. Some account of his experiments may, perhaps, throw light on the hardiness of the Camellia in this country.

His first experiment was with the old striped, or double variegated. A plant five feet high, of this variety, he planted out with Rhododendrons in the city, under a north wall, in a small garden, protected

from the sun and wind. It stood two very severe winters, but never flowered, and was much disfigured. The second trial was with a large single red, on the southern front of his house in the country, fully exposed to the sun. This plant was killed to the ground the first winter. The third experiment was with a large single Red. It was planted on the northern side of the house, and protected with straw carpeting. It has been out four winters, and it does not prosper. The fourth trial was made with nine strong seedlings. These were planted in a clump, in a northern exposure, shaded with large sycamores and other trees. They have been planted four years, and at present are full of buds. The fifth

trial was made by setting two large clumps, 100 each, of seedling Camellias. They were planted one foot by one and a half apart, in very poor soil, shaded by large trees, the aspect open to the northwest winds. The two first years, they were protected by an open shed, that is, on three sides, and the top covered; the shed being open to the southeast. Nothing was put upon the ground to protect the roots. The first winter the flowers were small and stunted. Last season they flowered partially through the winter; but in the month of April *had as fine a show of flowers as if the plants had grown in the green-house*; and bore a profusion of seed. This season they have no protection, only a thick covering of leaves, to keep the frost from the roots. They look as well now as the plants in the house.

To give you some idea of our temperature, I will remark that, on new year's day, I had the *Magnolia grandiflora exoniensis* coming into flower; and *Chimonanthus fra-*

grans and several other plants in bloom. On the 11th of January the thermometer was below zero of Fahrenheit. In the winters of '47 and '48, the mercury was down to three and four degrees. The Camellia will stand a great degree of cold, provided it is planted in poor, dry, gravelly soil, where the roots of other trees absorb the moisture of the earth, and protect the plants from the sun. Last November I observed that Dr. EDMONDSON had planted Camellias in various locations on the borders, to prove their hardiness. Respectfully,

SAM. FEAST.

.....
The above interesting account proves, conclusively, that the Camellia may be considered a hardy plant, under certain conditions, wherever the winter temperature is not colder than zero of Fahrenheit.

We look upon Dr. EDMONDSON's experiments as also confirming our previous opinion, that raising plants from seeds sown in a given climate, is a great step towards rendering them hardy in that climate. Ed.

ON THE VALUE OF ASHES, LIME, ETC., FOR FRUIT TREES.

BY F. R. ELLIOTT, CLEVELAND, OHIO.

It is well known, that all varieties of fruits do not flourish and mature equally well in all sections of the country. This has been mainly attributed to climate; and it has not unfrequently happened that a fruit-grower in one part of the middle states, hearing the qualities of a particular fruit, as grown in another part, has obtained and fruited it; and upon its not meeting the pains bestowed upon it by the first grower, has either counted the variety unsuited to his *climate*, or classed the first grower as ignorant and deceitful. Such decision, I venture to assert, may frequently have been

found hasty and erroneous. Had the recipient of the new variety received, at the same time, an *analysis* of the *soil* in which that particular variety had been grown to perfection, and applied such knowledge justly to the soil in which he was about to plant, the result would have been very different.

Climate, I think, will be found to have very little influence upon the good or bad qualities of a fruit. Indeed, I am somewhat disposed to assert, that it has no other influence than that of hastening or retarding maturity, as it is cold or warm. The

application of special manures, or components of soil, by different cultivators within the past two years, by which old varieties, or those not before esteemed, have been improved and restored, is an evidence that food, suited to the wants of the tree, was required in the soil; and not, that climate had aught to do with its deterioration.

As lime, or its phosphates, form a component part of all special manures for fruit trees, I will, as per your request, briefly note some few instances, among many, where it appears beneficial; and, again, where it does not appear required. To give a complete list of varieties that are affected by its presence in the soil, would occupy more room than I will dare presume upon.

The soil of northeastern Ohio, as a whole, is deficient in lime; that of northwestern, and southwestern, abounds more or less in it. But it is not always within the reach of roots of trees; and therefore, as I will state presently, the reason why some varieties requiring lime do not succeed in localities, often denominated limestone sections.

The "Waxen," "Belmont," or "Gate" apple,—for it is known in Ohio by all these, and even more names,—succeeds finely in most of northeastern Ohio. In northwestern Ohio it will sometimes be found good; but is frequently dry rotted at the core, deficient in flavor, and often covered with mould or fungus. A similar statement will apply to the central and southwestern part of the state. This is accounted for from the fact, that in many sections of limestone country, while there is abundance of the mineral eighteen inches or two feet below the surface, that portion of soil usually turned up by the plough or spade contains no lime beyond what may be found in all soils from decomposition of shells, droppings of birds, &c. This fact, too often overlook-

ed, reconciles the query as to how a variety, which grows and matures perfectly in one place, does not do equally well at a distance, often of not more than twenty yards. It is simply that, at this distance of only twenty yards, the surface soil is nearer the limestone subsoil, or perhaps is partly incorporated with it.

The "Baldwin" apple, so justly celebrated in the eastern states and in northern New-York, has, in Ohio, been subject to a dry, *bitter rot*, rendering it of only a second or third rate character, equal to "Pennock." Experiments have been tried, on a limited scale the past season, to remedy this by applications to the soil in which the trees grew. In one instance, where the tree stands in sandy soil, the simple application of a liberal dressing of wood ashes has resulted in rendering the fruit perfect. In another instance, where the tree stands in a clay loam, which has been well dressed with barn-yard manure, and sown with plaster, and upon which two years since was grown a crop of clover, last season turned under and the land cropped with corn, then sowed to wheat, was this year sown with common salt until the ground was white as far as the branches of the tree extended. The result has been perfect fruit, where, for three previous years, the bitter or dry rot had existed. The "Roman Stem," upon sandy soils, without any special applications, produces fruit small, knotted and blotched. By the application of half a bushel of caustic lime, to a tree of about three inches diameter of trunk, the fruit has been rendered perfect. In most parts of what are designated as limestone sections, or where the trees stand in soil in which lime holds a prominent part, the variety is counted among the best.

The "Vandervere" is a variety which I think delights in a rich alluvial soil; as it

is in such soils that I have seen grown the most perfect fruit.

The "Rhode Island Greening," classed by nearly all as a variety to be placed in select lists, has not proved a first class apple in all places in northern Ohio; and at this time, cultivators in central southern Ohio, deem it an insult to place it in a list recommended for their culture.

Such is the diversity of appearance in this fruit, grown in different soils in northern Ohio, that I at one time believed there must have been grown seedlings by the settlers from Connecticut, where the Greening is, or was, among the best, from seeds of this variety; and so much resembling the true, as not to have been detected. Having upon my grounds two trees of Greening in bearing, and which were standing within ten rods of each other, and apparently upon a similar (sandy) soil; the one fruiting a clear, perfect fruit,—the other the blotched, dull green, or "mouldy" variety, I last year applied wood ashes to the latter, and this season the fruits perfected alike.

In central southern Ohio, and on the borders of the Ohio river, twenty-five years since, this was esteemed one of their very best apples. At this time, with some exceptions, it is discarded. In the Ohio Fruit Grower's Report for 1848, page 25, Dr. BARKER speaks of an orchard in Muskingum county, a freestone soil, and fruiting as fine as ever. And again, of having found bitter rot in all orchards of this variety which he had visited, except the one above named and one other, which latter had been supplied with ashes.

As I before remarked, while there are sections denominated limestone sections, it is not always that any portion of lime is incorporated with the soil, at a depth which the roots of a tree would naturally reach. That such is the case, and that the soil,

where twenty-five years since this variety succeeded, is now exhausted in this material, would appear, from the fact of an application of wood ashes having rendered the fruit again perfect.

The "Winesap" is a variety which *apparently* adapts itself to all soils, and in all, is a fair appearing fruit; but when grown in soils which have lime as a component, I have found the texture not as fine and not as crisp and sprightly as when grown in sandy loam.

The "Newtown Pippin" succeeds most admirably in most of northwestern, central and southwestern Ohio, where lime is found. Instances are known where it has not proved good in these sections; but they have, when known to the writer, been always traced to a want of lime in the soil. In soils deficient in lime, an application of lime, or a liberal dressing of wood ashes, has resulted in producing good fruit. Cultivators vary in opinion, as to whether this variety answers best on what are termed clay, or on sandy soils. My own observation has been to award it a medium, i. e., a loamy soil, and more or less abounding in lime.

The analysis of Prof. EMMONS of the wood of the apple, pear, &c., as published in the Horticulturist (for January) last year, has been productive of much good; but to enable cultivators correctly to grow different varieties in perfection, an analysis must be made of each separate and distinct variety, from which the grower can decide (knowing his soil,) what particular material is necessary to be applied. Very respectfully,
F. R. ELLIOTT.

Cleveland, Ohio, Feb. 2, 1849.

REMARKS.—We owe Mr. ELLIOTT our sincere thanks for the foregoing interesting, and practical observations. We beg those who are inclined to underrate the value of special manures, (and among the rest an

editorial friend in Boston, who, if we remember rightly, has denominated our own efforts, and those of others, toward awakening public interest to the value of inorganic manures, "quackery,") to examine Mr. ELLIOTT's account of the direct and distinct result of experiments with lime and wood ashes. As we have before stated, we have no doubt that, in nine cases out of ten, where a variety of fruit which once flourished in a given soil, has ceased to flourish and perfect fine fruit there, it is because the soil has become destitute of the necessary *mineral* manures; and in nearly all such cases, the plentiful application of wood ashes alone, or wood ashes and lime, will restore the healthy condition of the trees.

Our correspondent, in his remarks on the supposed influence of climate on certain varieties, no doubt alludes to our own work on Fruits. We candidly own that we were wrong. We were satisfied, more than a year ago, that we had attached too much importance to the effects of climate in *deteriorating* varieties; and accordingly rewrote and altered (in the *eighth* and subse-

quent editions,) all that portion of the *Appendix*, etc., in our work on Fruits, relating to this subject. A larger observation of the effects of the composition of soils, within the last two or three years, convinced us that much of what we attributed to climate was simply owing to a want of the necessary inorganic, or *mineral* manures in the soil; and as we are always ready to abandon a wrong opinion the moment it is plain to us that it is an error, we beg those who have only the earlier editions of our work to do us the justice to remember this correction.

At the same time, we think climate often has an effect upon the *quality* of a given fruit, though not upon the deterioration. Thus, the Ribston Pippin is a fair and beautiful apple on the Hudson; but it is of little or no value, either in point of flavor or keeping quality, as compared with the same fruit grown in the colder climate of Maine; and the comparison of notes with Mr. ALLEN, the intelligent president of the St. Louis Horticultural Society, has proved to us that many of our finest fruits are only of second quality in Missouri, merely from the effects of climate. ED.

POMOLOGICAL CONVENTIONS.

ANY one at all conversant with the horticulture of this country, can easily see that not only fruit-growing for pleasure and profit, but pomology as a study and a science, are becoming matters of larger interest here than in any other part of the world. The superior quality of the best American fruit, and the large crops which now find a market, both at home and abroad; the constant demand made upon nurserymen for the best trees, and upon experienced writers for works on fruits; these are all strong proofs of the awakened

state of the public mind regarding this branch of horticulture.

Perhaps a more decided and significant evidence of the interest in pomological science is, however, witnessed in the assembling of *pomological conventions* in different parts of the country, with a view of comparing varieties, correcting errors, and disseminating knowledge on all pomological subjects. Such excellent movements are the conventions held for two years past in Ohio; and, during the past year, at Buffalo and New-York.

There cannot be a doubt that such conventions are of great service, both to fruit-growers and to pomology. The former learn what is good, and what is worthless, what succeeds, and what fails, from the lips of practical men,—the best of all teachers. The latter gains by the accumulation of knowledge, and by the rectification of errors.

It is also very clear that, in a country so broad and so various in its climate as the United States, no invariable rules can be laid down by any local society, convention, or writer, for the whole country. Thus, the Fall Pippin, the queen of autumn apples in New-York, takes only a second rank in New-England; and the Rhode Island Greening, one of the best in New-York, is one of the poorest in Missouri. Here lies, then, the real and the limited value of local societies, and state conventions. Hence we approve highly of all efforts of this kind; all associations,—agricultural, horticultural, pomological, of a local nature, because it is only by their means that particular districts, states, or sections of the country can be benefitted; and it is by developing and perfecting, to the utmost, the resources of each particular town, county, and state, that the general standard is raised to its highest pitch.

But it is also equally clear, in the progressing advancement of a subject so full of details and perplexities as that of pomology, that there are some things which ought to be performed, and yet which cannot be performed by local, sectional or state associations. Among these, for example, are establishing standard names of certain sorts, known by a dozen different titles in different parts of the country. A state convention, (no matter what title it bears,) for instance, may decide, like that at Buffalo, that the apple generally known as the

"*Early Harvest*," shall be called the "*Yellow Harvest*;" or, like that in Ohio, that a fruit known in New-England by one name, and in Ohio by another, shall be called by the latter; but it amounts, after all, only to a resolution. We say it amounts to this, because so long as these are only *local* conventions or associations, even if attended by growers from other states,—so long, in short, as opinions, that relate to general and not to local matters, do not emanate from some association or body which the community at large recognizes as being delegated with national, and not with local powers, so long the public, fruit-growers generally, and pomological writers, will not recognize or respect such opinions; and however good they are, consequently only a dead letter.

We make these remarks, because we know the public earnestly desires, besides the local societies, some one association (and there can be but one,) of a national character; which shall consist of delegations representing all the local societies, and thereby making a body of the best horticulturists and pomologists in the country, *officially* stamped and recognized as such by the local societies, from whom they are sent in all parts of the country. Whatever decisions about pomological points, of general interest or question, such a body should give, they would, it seems to us, be entitled to, and would receive the hearty assent of the whole country.

Last October such a body was convened in New-York, under the title of the National Convention of Fruit-growers. It was composed of delegates from all the leading horticultural and agricultural societies from New-England to St. Louis. It was by far the largest and most intelligent body of horticulturists ever assembled in America. It resolved itself into a permanent national

association, under the name of the American Congress of Fruit-growers; and it appointed committees, in a majority of the states, to collect information, and report at the next session.

This is so far excellent. The call was made in the right spirit; it was admirably responded to; and we cannot but think the Congress will be productive of great good. Time and labor alone are wanted to achieve the excellent results proposed by it.

But in order to do this, it is clear that the Congress of Fruit-growers must be recognized as the national institution. We have no doubt that this will be the case; because it was called into existence, not by any state or local society, but by three of the oldest societies in New-York, Pennsylvania and Massachusetts; because it is composed of representatives from all the horticultural societies in the country; and because it has the cordial good wishes of intelligent horticulturists on all sides.

We are induced to refer to the matter at present, more particularly, by a "*Circular*" before us, which purports to come from a committee of the North American Pomological Convention, and has been sent out from Albany to gentlemen in various parts of the Union, appointing them members of state committees, to collect information on fruit culture in various states of the Union.

It is, perhaps, worth while to examine a little into the history of this circular; because, if its claims are allowed, then it is clear that we are to have, not one, but two conventions, claiming to be the national body of pomologists and fruit-growers,—a circumstance which can only result in greater general disorder and confusion, instead of greater general order and system.

The New-York State Ag. Society called and held a state pomological convention at Buffalo in September last. It was largely at-

tended by members, not only of this, but of other states, and was productive of much good. It was, however, as far as we can judge, really a state convention; for it was called by the state society, organized by the president of that society, and dissolved without the appointment of a single standing committee or board of officers; dissolved, only to be called together anew by the state society whenever and wherever the latter should hold its annual fair. Some two or three members, fond of a good name, did, to be sure, succeed in having it called the "North American Pomological Convention;" but that, we looked upon as a compliment to the gentlemen collected together by the fame of the state fair, from various parts of the Union, and who also attended the meetings of the convention with great interest. The fact that all power, authority, and even existence of the convention, as a distinct body, were quietly surrendered at the close of the convention to the state society, showed, we think, conclusively, that no step was really taken towards making it a permanent national institution.

But the circular before us purports to come from the "Committee of the North American Pomological Convention." Who compose this committee? The paper is not only entirely anonymous, but Dr. WENDELL, of Albany, a zealous amateur and friend of pomological progress, (and who, we notice, is appointed, by the anonymous committee in the circular, chairman of the new committee for this state;) this gentleman, acting in the sincere desire to unite all the ability in the country in one national association, proposed, when the Congress of Fruit-growers was being made a permanent national institution, to merge the material of the two conventions into one. On inquiry, however, it was found, as the lead-

ing members of the Buffalo convention admitted, that nothing remained of the latter association; that there was no committee, and no board of officers to confer with; and, in fact, that it was only a convention which had been assembled by the state society, achieved its object, and had been dissolved.

On first examining this "anonymous circular," we supposed that it might emanate from the New-York State Society. Not being willing to believe, however, that the state society would so far go beyond its natural province, as to imitate the course taken by the Congress of Fruit-growers, and endeavor to weaken its influence by appointing committees in all the states of the Union, to collect information on the subject of fruit culture for national purposes, we have made inquiry regarding the authenticity of this circular, as connected with that institution. The result is, that the state society has never authorised or recognised the existence of this or any such circular.

It is, therefore, no more than proper that we should apprise the gentlemen who have received their appointment in the anonymous circular, that, as the state society does not recognize it, and as there is virtually no such body as the North American Pomological Convention in existence, they have received the compliment of an appointment by a committee which does not exist; or by an authority altogether unknown.

We should greatly regret to see the appearance of such a paper, if we supposed it would have any influence on the public mind. But the anonymous circular will, we predict, fail in producing the desired effect. The majority of intelligent horti-

culturists, pomologists, and fruit-growers of the country at large, are enlisted, heart and soul, with the only national association,—the Congress of Fruit-growers; and several of the gentlemen in other states, who have been appointed on the committees of the New-York State Society, have already informed us that they could not act with, and did not approve of the step taken by that society.

Of course, the influence of this journal, (which so far from being local, now circulates from Canada to Louisiana, and which aims at the general good first,) will be entirely given to the interests of the Congress of Fruit-growers, so long as that body is faithful to its proper objects. On the other hand, we will gladly assist, in our humble way, every effort for horticultural progress in our own state society, so long as its plans are kept within their proper limits, where we feel certain, under the new board of officers, they will be confined.

One word more. It has been (perhaps ignorantly,) stated, in one or two of the agricultural journals, that an eastern or sectional character would necessarily be given to the Congress of Fruit-growers. The very composition of the association (by representation,) forbids this; and so far even from confining its meetings to the Atlantic states, they will, when the body is in full operation, be extended as far west as Cincinnati and St. Louis.

This is a matter of larger importance than any other in horticulture; and we therefore earnestly call on all fruit-growers, who do not see it in this light, (if there are any such,) to lay aside sectional feelings, and join in bringing about a distinct, general, public benefit.

THE POMOLOGICAL CONVENTION AT NEW-YORK.

BY YARDLEY TAYLOR, LOUDON COUNTY, VA.

BEING a lover of good fruit, and desiring to see its cultivation extended, I have read with interest the articles in the *Horticulturist*, and other kindred publications, on this subject, as well as the proceedings of the late Fruit Convention at New-York. That convention, as a body, could hardly be expected to perform, in one session, all that it may ultimately accomplish, even in any one department. It may be justly said to have made only a beginning. Yet, if no other benefit should be obtained than the personal information imparted, at the time, most, if not all, of its members would be amply repaid for the expense and time spent while in attendance. Every member of that convention seemed to manifest not only a willingness, but a desire, to impart to others all the information he possessed in relation to fruit, its culture, &c. This was one of the most pleasing features exhibited; and must be looked back upon with much satisfaction by all its members.

The official acts of the convention have elicited commendation from the public press generally; yet, in some cases, justice has hardly been done to its motives. In a late number of the *Cultivator*, in an article alluding to the small number of fruits recommended for general cultivation, the inference would seem to be made, that the committee, to whom the subject was referred, had hardly done its duty, or that there were no other fruits worthy of general cultivation; for with all the talent and ability of that committee, they could not agree upon a larger number,—as scarcely one variety could be named, but what some objection

was made to it, in one section or other. Whether this inference was intended or not, it struck me as doing the committee injustice. I well remember the report of that committee; and that was, that from the nature of the subject referred to them, and the necessarily limited time of the committee, they could not, at present, give the subject all the attention the importance of it demanded; but they would make a beginning, and report a small number of fruits, such as were generally known, and that, at some future time, the list might be increased until it should include all worthy of cultivation. This was all the committee could do at the time; and no one, who was a witness of their labors, would say that they were idle.

A member of the convention urged upon its consideration the propriety of a committee, to bring in a list of recommended fruits, as also a list of rejected fruits. This proposition was considered premature by the convention.

Dr. VALK, of Flushing, has been entertaining the readers of the *Horticulturist*, in advocating a great reduction of the varieties in the catalogues of most nurserymen; and appearing to infer, that from the great number enumerated they could not all be good; and that it was hardly honest, or at least, not right to keep so large a number in cultivation. But in a late number, the Dr. has an interesting "Chapter on Pears," in which he gives an extract from a correspondent in Belgium, whom he had requested to give him a list of those "he knew to be the best in that country." The quotations from that correspondent are va-

luable, and contain hints worthy of consideration by the growers of pears.

The list presented, containing, as it does, 266 varieties of pears, asserted "to be the best quality here, (Belgium,)" must have been something of a damper upon the Dr.'s "calculation previously made, and regarded as satisfactory." However, it is to be hoped the Dr. will continue his articles in the *Horticulturist*, as they are read with interest by one at least.

There is one consideration, presented by the foreign correspondent, that must have weight with any committee that shall undertake to prepare, either a list of recommended or of rejected fruits. Where shall the line of discrimination be drawn? Shall those only be recommended that shall prove good in all and every situation? Then the list must be made small indeed. Shall all be rejected that do not prove good in all soils and situations? Then many varieties that are first rate in many localities, must be set aside. In Belgium, it seems, (and the remark applies here with much greater force, owing to our widely extended country,) that "some pears are influenced by culture, either on the quince or not. Indeed, some do not give satisfaction, unless on the quince roots; and some do not thrive on these roots at all. Many only flourish as espaliers; others, again, only as standards. Some, if on quince, must be in a cool and moist soil; if on natural stocks, the soil to be warm and rather dry. Some are good in all soils proper for the pear. Some are only fine on the pear stock, and some on either."

The diversity of soil and culture necessary for some varieties, that are considered fine, must influence a committee in forming their list; and this diversity of soil and culture should be given, so as to enable persons to make a selection suitable to their

locality. But this will require time, and cannot be done without more experience than we at present possess. In the vicinity of Boston, where the cultivation of the pear has been practically attended to for some years, they are prepared to say what kind of soil and culture may suit particular varieties; yet we can hardly expect that their experience will suit all sections of our widely extended country, where the soil and other influences may be very different. The facts there ascertained are valuable, and well worthy the attention of all who design to cultivate this fruit; yet we can only by experiment determine whether they will suit other localities.

The same observations will apply, more or less, to other fruits. An apple that, at the north, may be a first rate winter fruit, by transplanting it south will probably be only a good fall fruit. There is a degree of temperature necessary to bring every fruit to perfection; and when this perfection is attained just at the commencement of cold weather, that fruit will keep much longer than if it had reached that state of perfection a few weeks earlier. Some apples that are fine in New-York, and further south, will not ripen sufficiently in the vicinity of Boston to be of any value. The Newtown Pippins and Yellow Bellflower are of this class, while south of New-England they are of the best quality. And it is more than probable that the highly prized winter fruit of New-England, by being introduced here, will be only good late fall fruit. Our temperature here will be likely to bring them to perfection too early; so that they will be too ripe at the commencement of winter to keep long. However, we are going to try them, and that will settle the point whether this theory is true or not.

Looking at the subject in this light, it

seems that the convention will not be able to make out a large list, as suitable for general cultivation, in our widely extended country. The same variety of fruit may suit the same degree of latitude to any distance westward ; but the difference of temperature, in going north or south, may have an injurious influence, and render it worthless. And yet, it would be hardly right for the convention to reject a variety that was good at one extreme, merely because it was not so at the other. I understand the design of the convention to be national in its character. Hence, it may ultimately be proper for it to recommend all good fruits, and designate the section of country where they are so. To recommend only those

that are proper for general cultivation, would be to leave out many valuable varieties, in particular localities, and make the list a local one ; and then to include all others in a rejected list, would be equally unjust.

YARDLEY TAYLOR.

Mr. TAYLOR's views will be responded to by every judicious reader. If the *State Fruit Committees* will prepare full returns to all the queries for information in the circular of the General Fruit Committee, published last month, we think the Congress of Fruit-growers, at its next meeting, will be able to present a mass of information, regarding the value of varieties, in various parts of the Union, such as has never yet been laid before the public. Ed.

THE BELGIAN WINDOW GARDEN.

BY DR. LINDLEY.

THOSE who are debarred from the enjoyment of a GARDEN by sickness, residence, or fortune, should take a leaf out of the book of the French and Belgian ladies, who succeed, by means of double-glazed windows and other contrivances, in providing themselves with an ample supply of fresh flowers at all seasons of the year. With us, the first object of the dwellers in towns is to buy plants, the next is to provide for them. Elsewhere it is thought more advantageous in the first instance to secure the means of keeping a plant in health, and that being accomplished, to obtain it. We will not be so uncivil as to reproach our fair countrywomen with herein indulging in that sort of caprice which is vulgarly called putting a cart before a horse ; but we shall confine ourselves to an explanation of the manner in which other persons proceed, leaving all who are concerned to form their own judgment in the matter.

"In Belgium," says M. VICTOR PAQUET, "wherever you go, you see spaces between double-sashed windows filled in the winter time with the most charming flowers.

Elsewhere the balconies are turned into green-houses, and you may find on the fifth or sixth floor a miniature green-house gay with the brightest flowers and the greenest foliage. In Paris there are many such contrivances, especially two on the fourth floor of a house in the Boulevard de la Madeleine, at the corner of the Rue Caumartin. Here are to be found the rarest plants. Camellias grow in the open ground. Passionflowers cling to the columns ; the creeping fig forms a carpet upon the walls, and water-plants start up from tiny basins curiously contrived in the solid brickwork. By turning a screw a stream of limpid water flows down a rock, from whose crevices start up Ferns and Lycopods and such things. And what is it that adjoins this little paradise but a bed-room ! The first beams of the morning sun throw upon the bed of the owner the shadows of Palm-leaves and Bananas, or of garlands of Passionflowers."

This sort of garden, though on the fourth floor, is, however, rather too ambitious for everybody's taste, and therefore we agree

with M. PAQUET that the little Belgian window-gardens are upon the whole more likely to meet the means, if not the fancy of the mass of mankind. We therefore borrow from him the following figure and description of one of them, which has now become extremely common. Let figure 46 represent the outside of this window-garden, and 47, a section of it, together with the window to which it belongs. A sloping roof of glass is carried outwards from the middle cross bars of the sash in such a way that the upper sash allows light to enter the room freely. The lower sashes open as usual by a pair of folding leaves as wide as the window frame. A pair of brackets carries the floor which projects beyond the walls of the house. Shelves are fixed to uprights next the window-leaves, and the sloping roof is raised or depressed by means of a rack, which is easily reached from the inside."

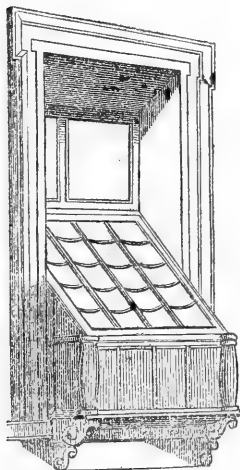


Fig. 46.

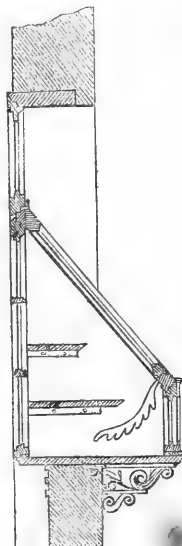


Fig. 47.

It is obvious that this contrivance possesses all the advantages of a Ward's case, without its inconveniences. Being placed on the outside of a house, it occupies no space that is otherwise required. As the glass next the room will always be warm, there will be no condensation upon it to conceal the plants which the window-garden contains. The folding leaves render

it easy to get at the interior, and in towns water could be readily laid on for the purpose of moistening the plants when it is required. Such little contrivances would suggest themselves to any ingenious mechanic. A place of this kind might even be heated in severe weather by a pan of boiling water, or protected by a woollen covering thrown over it at night. In short, it seems to be of all things the best adapted to the purposes, as well as means, of those to whom window-gardens would be acceptable. In such a place it would be perfectly practicable to have all sorts of forced flowers in spring and winter; Roses in summer, Pelargoniums in autumn. A thousand pretty plants might be selected for variety, and the whole would be a most agreeable amusement for those who are neat, careful, and skilful.

A model of this Belgian window-garden was most obligingly forwarded to us from Boulogne, by our good correspondent, Mr. CRUCKSHANKS, and shown to the Fellows of the Horticultural Society. It teaches us several things. A rolling blind is made to work in the inside, so as to screen the plants from too much sun, when placed in a southern aspect. A trellis-work of wires is carried up the ends, and adds much to the appearance of the little garden. Here thrives *Maurandya Barclayana*, together with the little *Tropæolums* of Chili. The bottom should be guarded by a raised edge next the sitting-room, so as to form a shallow box at least 6 inches deep; this is to be filled up with damp moss, in which the pots are plunged, and by which they may also be covered. Attention to these matters has been found by experience to be essential. We would add moveable ventilators at the front and sides, so that air might be given when it would not be prudent to raise the sash.

Such little details are what constitute the secret of success; and now that the plans of construction are intelligible, and that many are, as we believe, preparing to adopt these gardens, we must offer some hints in a general way.

The advantage of such an apparatus consists in its separating plants from a sitting-room when they are not wanted, and introducing them there the instant they are

wished for. Open the doors, and the garden forms part of the room; close them, and the apartment is relieved from the presence of the plants. But, what is of much more importance, in the latter case the plants are themselves completely relieved from the fatal atmosphere of the apartment, —not fatal, indeed, if inhaled for a few hours at a time, but certainly destructive if endured for long.

What, it may be asked, is there in the air of a sitting-room which plants are thus unable to endure? Can anything be purer than the atmosphere of an English drawing-room? Perhaps not; but it is this purity which in part inflicts the injury. Plants would thrive better if it were otherwise, but it is more especially its dryness. Let any one measure the moisture of a sitting-room and the open air, and he will see how great a difference prevails. We have this moment tested it by Simmons's hygrometer; in the open air this instrument indicates 40°, in a sitting-room 60°.

When plants are kept in a dry atmosphere, they rapidly lose their water of vegetation; the sides of their pots are robbed at the same time; and it is impossible for plants to suck out of soil thus partially dried the moisture demanded for the sustenance of their exhausted foliage. Such a state of things is inseparable from a sitting-room. To render the latter congenial to plants it would be uninhabitable by ourselves. The extent to which plants are injured in a common sitting-room is strikingly illustrated by the condition of cut flowers. Let two clusters of fresh gathered flowers be introduced into a sitting-room; place the one in the mouth of a narrow necked jar of water, and arrange the other upon such a shallow pan of water as a deep dish will furnish. It will be found that the latter will be perfectly fresh days after the former are faded. The reason is that in the narrow necked jar the flowers have no access to water except through the ends of their shoots, and are surrounded by a very dry air; while in the flat dish they are able to absorb abundant water, because a large part of their surface is in contact with it, and are moreover surrounded by air incessantly moistened by the vapor that continually rises from the dish.

Of this we may be sure, that darkness, dust, heat, want of ventilation, and all the other calamities to which plants in sitting-rooms are subject, are as nothing compared with the inevitable dryness of the air; which indeed acts injuriously, not merely by exhausting plants of their water of vegetation, but by lowering the temperature of the pots in which they are grown, in consequence of the evaporation constantly taking place there.

What makes the evil greater is, that the plants which are purchased for sitting-rooms are invariably brought into high condition by being grown in a damp atmosphere. They are transferred from the hands of skilful gardeners, armed with the most perfectly constructed forcing-houses, into the care of inexperienced amateurs, whose means of maintaining a plant in health are something considerably less than nothing.

A case will illustrate this: A Rose bush is bought in the market, fresh and trim, with one or two flowers open, others in bud, more still younger, and many but just peeping out. From such a specimen nothing, it would seem, can result but a long succession of beauty. But this charming thing, so fresh and promising, was, perhaps, a few hours before, the inhabitant of a damp green-house or pit, where its leaves were formed in shade, and their surface softened by a daily bath of artificial dew. It is suddenly conveyed to a sitting-room; its leaves shrivel up under the withering influence of its new habitation; the fountains of life become dried; the young flowers, starved by want of their accustomed food, drop off, the leaves follow them; the green-fly or red spider attacks the suffering remains, and a week or two are sufficient to witness the destruction of all the buyer's hopes.

We appeal to everybody's experience for our proof that this is an ordinary case. But a Belgian window-garden removes the difficulty; in such a place a plant is kept in precisely the circumstances most conducive to its health; light and moisture foster the young shoots, and the softened air provides a due supply of all that is indispensable to vigor.

To those who propose to engage in this kind of amusement we would add a very few words of empirical advice. 1. Always use

rain-water; 2. Always let it be milk-warm; 3. To every quart of rain-water add half a grain of nitrate of ammonia, or sulphate of ammonia; 4. Invariably keep up a continual current of *warm* fresh air through the garden whenever the circumstances of the season will permit; the easiest method of accomplishing this, which is equally important in large as in small houses, and yet is almost universally neglected, we shall consider on a future occasion.—*Gardener's Chronicle*.

PRACTICAL HINTS TO AMATEURS.

BY AN OLD DIGGER.

You may plant peas, for the earliest crop, as soon as the frost is out of the ground, and it is fit to dig. Choose a warm, sheltered spot, and use rotten stable manure and ashes in preparing the soil, before sowing the seed. Peas don't mind a hard frost, even when on rich or too high ground; and therefore the earlier you plant, the earlier you pick. If you have to plant in the open garden, you may hasten your crop by sowing the drills east and west, and setting a board on the ground edgeways, on the north side, to shelter each row. "Prince Albert" is one of the best early sorts.

Rhubarb is an invaluable plant to those who like a spring tart. You may have yours ready to cut a week before your neighbor's, without the trouble of forcing, if you set your plants in a border on the south side of a wall or tight board fence, and take the precaution to loosen up the soil, and cover each crown of roots with a bushel basket full of black peat earth the autumn before.

Some men are marvellously fond of *pruning*, and go about cutting a limb here, and a branch there, without "rhyme or reason." Don't prune your standard trees, unless the branches are so unnatural as to crowd each other; and even then, they should be thinned out as little as possible to answer the purpose. Or, in the other case, where the

tree has got into a stunted and feeble state, when a shortening-back the terminal shoots, along with a good dressing of manure, will make it push out strong, healthy shoots again.

If you wish to get early crops in your kitchen garden, make some boxes two feet square, and a foot high. Knock them together out of any rough boards; and if you cannot afford to glaze the whole top, (and, to say the truth, it is a waste of money,) put a single light in—a 7-by-9. If you want a hill of early cucumbers, melons, or tomatoes, dig out a hole of the size of the box, and two and a half feet deep, fill it with fresh stable manure mixed with litter, tread the manure down firmly till there is room for six or eight inches of good light soil. On the latter plant your seeds. They will soon start, with the slight warmth of the manure, and the box will protect them at night, and during cold and stormy days, till the season is settled. Every mild day you will, of course, raise it up on one side an inch or two, for fresh air; and in positively warm days, remove it for a few hours altogether. In this way, you will get a crop, at small cost, a long start in advance of the unsheltered growth along side, and have none of the bother and vexation of *transplanting* from hot-beds. The boxes cost very little, if you make them yourself; and if laid away as soon as there is no fur-

ther need of them, they will last a dozen years or more.

When you are planting a tree or shrub, don't be penny-wise and pound-foolish ; in other words, so anxious to have it look large, as to be unwilling to cut off a single inch of its top to balance the loss of roots. Remember that if your tree would grow six inches if left "unshortened," it would grow twelve if properly shortened, besides making far healthier shoots and bigger leaves, to say nothing of its being five times as likely *not* to die.

If you are about to turn "orchardist," never buy a large quantity of trees of any nurseryman, on the strength of his own "extensive" advertisements. It is easy to say fine things in print ; such as "immense specimen grounds," "50,000 trees, carefully propagated under the direction of the proprietor," &c. &c. Go and see for yourself ; and very likely the "immense specimen ground" may turn out to be a dozen old trees in a grass plat, and the nursery a wilderness of confusion. Never, in short, buy a large quantity of fruit trees of any man who is a stranger to you, without inquiring first all about his accuracy, from customers who have dealt with him, and proved his sorts. Such people, who have tasted his quality, are not very likely to tell "long yarns," though advertisements sometimes will.

The neatest and most perfect mode of grafting, is *splice grafting* ; (see Downing's Fruits, p. 15.) It can only be done when your stock and scion correspond pretty nearly in size ; but the *amalgamation* is done in short-hand. Tie the wound over neatly with a strand of matting or coarse woollen yarn, and smear the whole over with thick "shellac paint," and not one in a hundred will fail.

No large fruit tree is so readily "re-

formed" as a pear. Many a tree, of twenty or thirty feet high, that stands, at this moment, within ten rods of your door, and bears nothing but fruit that you would be ashamed to offer at a county fair, may be made to bear *bushels* of Bartletts, or something as good, in three years' time, by the expenditure of a couple of hours, in cutting back and grafting all the principal limbs as soon as the sap is fairly in motion. "Cleft grafting" is the readiest mode for this sort of subject ; and a little practice will enable any one to perform it very quickly.

If you want to be successful in transplanting, don't be afraid of working in dull weather. If you are shy of a "Scotch mist," buy an India-rubber macintosh. Nothing is so cruel, to many sorts of trees, as to let their tender fibres parch up in a dry wind, or a bright sun. Such weather may be fun to you, but 'tis death to them.

Dress your lawns with a mixture of guano and ashes ; one bushel of the former to four bushels of the latter. The earlier in the spring it can be put on the better, so that the rains may carry the soluble parts to the roots. A light coat of this, spread broad-cast, is much better for grass than any other manure.

The best top-dressing for a strawberry bed is *burnt sods*. Pile up the brush and rubbish you have at hand in layers with the sods, and set fire to the heap ; let it smoulder away for several days, till the wood is pretty well burnt out, and the sods well roasted. Then overhaul the heap, chop and beat it up fine with the spade, and, after loosening up the soil in the bed, give them a coat an inch or two in thickness. It will give new life to the plants, and set them in a way to give you an uncommonly fine crop.

A FINE NEW EARLY PEAR.

BY DR. W. D. BRINCKLE, PHILADELPHIA.

It is very rare that, among new fruits, one is found of superior excellence, ripening either at a very early or very late period. The majority of seedlings produce fruits which mature at what may be called the middle season.

Good early pears are especially a desideratum, because it is precisely at that time,—about, or a little after midsummer,—that ripe fruit of any kind is scarcest.

We suspect that the variety, described and figured below, by our esteemed correspondent, Dr. BRINCKLE, will prove a decided acquisition in this respect. At the present time, the public are not inclined to take upon trust the character of any new fruit which is highly lauded, unless its reputation is well authenticated. We may therefore state that this variety has been exhibited, tasted, and has elicited high commendation, both before the Pennsylvania and Massachusetts Horticultural Societies. Col. WILDER, in a note, written last season, after tasting this variety, gives it the following character: "The Ott Pear is quite first rate, and I think, *in flavor*, surpasses the Citron des Carmes, Bloodgood and Bartlett."

We will add to this excellent testimony our own. Dr. BRINCKLE very obligingly sent us specimens when in perfection. What the Ott Pear may prove, as regards hardiness, productiveness, and adaptation to general culture, of course, we are not yet able to say; but that it is one of the highest flavored early pears yet known, is undeniable.

We suppose this new pear is not yet for sale in any of the nurseries, though no doubt its propagation has commenced about Philadelphia. Meanwhile, we give the following description and figure, by Dr. BRINCKLE, to awaken attention to the merits of so excellent a variety. ED.

THE OTT PEAR.—This valuable new variety was exhibited, for the first time, in 1848, at the August meeting of the Penn-

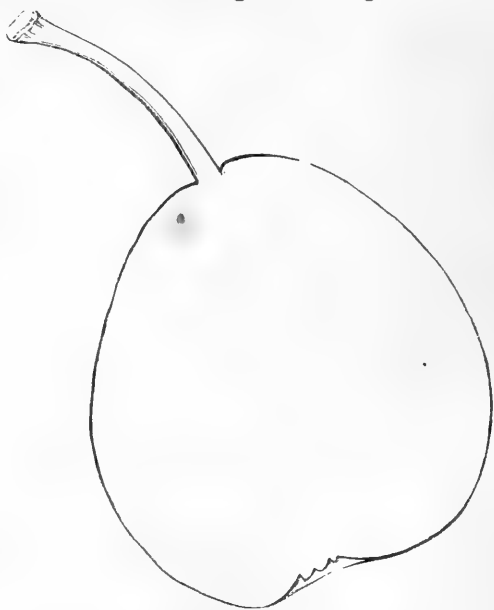


Fig. 48.—The Ott Pear.

sylvania Horticultural Society, and was considered of such decided merit as to be entitled to a special premium.

It is a seedling from the Seckel, and originated with Mr. SAMUEL OTT, of Lower Merriion township, Montgomery co., about seven miles from Philadelphia. The original tree is about thirteen years old. Mr. OTT represents the fruit as being larger

than the Seckel; from which it differs in form, length of stem, colour and shape of seed, and especially in the time of ripening.

The annexed description is taken from specimens which he was kind enough to bring me:

Fruit small, two and one-fourth inches in length by two and one-eighth inches in its transverse diameter; form roundish, occasionally tapering a little to the stem; skin greenish-yellow, with considerable russet,

and sometimes a mottled red cheek; stem a little curved, one and one-quarter inches long, of medium thickness, and inserted in a small cavity; calyx rather large, reflexed, and set in a shallow basin; core small; seed of medium size, black, with a prominent point at one of the corners of the blunt end; flesh whitish-yellow, and melting; flavor saccharine, rich and highly aromatic, resembling closely that of its parent, the Seckel. Ripe early in August.

THE FRINGED CHINESE PRIMROSE.

To amateurs, who like "really good things," that is to say, plants with good foliage, excellent habit of growth, and handsome and abundant flowering properties, the *Fringed Chinese Primrose* may be recommended as something worth having.

It is a great improvement upon the old Chinese Primrose, so long known in our green-houses. The flowers and foliage are more than double the size of those of the old species, and the colours are much more lively. Our drawing is made from a plant sent us by N. J. BECAR, Esq., of Brooklyn, who has been particularly successful in growing this variety from seed. Around the whole interior of this gentleman's Camellia conservatory, at Brooklyn, runs a walk, paved with marble, and bordered by that exquisite little evergreen plant, the trailing *Lycopodium*. The bed, along the outer margin of the conservatory, is filled with plants of this Fringed Chinese Primrose, from a foot to eighteen inches high, surprisingly luxuriant in habit, and covered with blossoms twice the size of those represented in the figure. When we say that these plants are continually in bloom, from December to May, and that they give

an appearance of perpetual vernal freshness to the border in which they grow, it will be seen at once how much more valuable they are than most of the fugitive plants which fill up the green-house.

Though the Chinese Primrose is properly a perennial herbaceous plant, yet it thrives and flowers much more satisfactorily when treated as an *annual*,—fresh seedlings being raised every year for the winter's supply of flowers; the old ones cast away. The seeds ripen from April to June; and fresh seed sown, as soon as ripe, in pots of rich sandy soil, placed in a partially shaded frame, in the open air, will produce fine blooming plants for the coming winter.

Mr. BECAR has raised the beauty of his stock of Fringed Primroses far above that of those commonly grown, by selecting only those seeds produced by the very largest and finest flowers, and those of the finest shades. In this way, he has obtained plants with flowers of a rich, clear, purplish pink, and others of which the flowers expand a pure white, and change to delicate lilac or flesh colour.

As no plants adapt themselves to the air of the parlor or sitting-room better than the



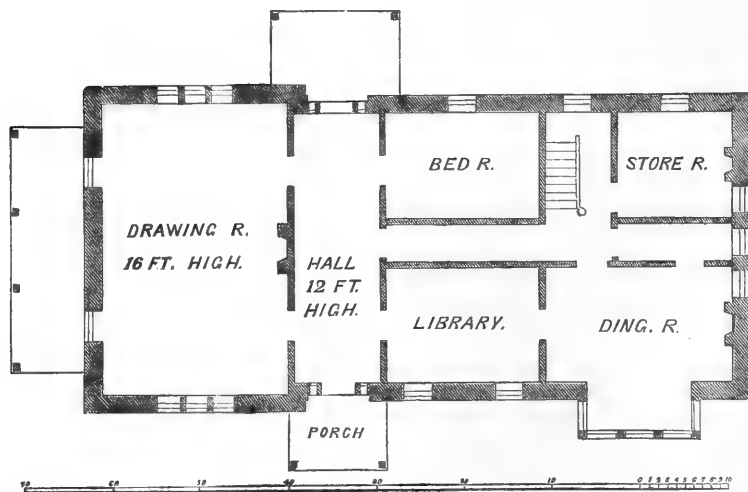
Fig. 49.—*The Fringed Chinese Primrose.*

Chinese Primroses, they have become decidedly popular among those whose greenhouse collection is confined to a single window. In England, a *double* variety is cultivated, which, so far as we hear, has not yet been introduced into this country.





LANGWOOD.



PRINCIPAL FLOOR.

DESIGN OF A VILLA, NEAR BOSTON.

A FRIEND in Boston has very kindly sent us a view and ground plan of a villa, in the Italian style,—Langwood, the residence of Mr. WM. BAILEY LANG, which we give as the frontispiece of the present number.

We gather the following description of this villa from his letter:

“Wyoming is a charming rural neighborhood, six and a half miles north of Boston. Being located on the margin of one of the most picturesque lakes in New-England, it has lately become quite celebrated for the beauty and variety of its natural scenery. It occupies several hundred acres of land, and was once owned by a recluse, whose aversion to neighbors and society caused its rich green lawns, deep glens, foaming cascades, and numerous running streams, to remain comparatively unknown for twenty-five years; but lately, the property has been purchased by a company of

gentlemen, who have laid it out in lots, varying from two to eight acres each, for cottage and villa residences.

“Langwood,” the seat of Mr. LANG, at Wyoming, is an agreeable and commodious villa, built of rough stone. It covers a space of 78 by 37 feet. The exterior, as you will see, is expressive alike of elegance and commodiousness; and the interior arrangement, which is very simple, will be seen at a glance by an inspection of the plan of the principal floor.”

We may add to the above, that the fine back-ground of trees has been omitted by the engraver, in the elevation presented, so that justice is not done to the rural character of the site, or the scenery which surrounds this residence; which, together, are far from presenting the meagre appearance shown in the plate.

 FOREIGN NOTICES.

MR. BARRY IN LONDON.—*London, Dec. 14, 1848.* As the Europa sails to-morrow from Liverpool, I thought I would send you a short gossip touching a few of the more interesting matters that have caught my attention since I arrived in England.

The winter, so far, has been remarkably mild. The lawns are as bright and green as ours in the middle of May, and the gardens are yet gay with Roses, Chrysanthemums and Laurustinus, and other flowers. I am delighted, with every step I take, with the profusion of evergreens that fill up every little space throughout the cities. Laurels, Bays, Yews, Cypressess, Aucubas, Hollies, Junipers, Rhododendrons, Ivys, &c., clothe every wall and door yard with a verdure as fresh and luxuriant as we could hope for in the month of June. This is some compensation for the muddy streets and rainy, murky weather that continually prevails. I have not seen the sun half a dozen times since I have been here, and then only glimmering through a fog. I eat breakfast at eight in the

morning, by candle-light, and dine at four in the afternoon, by candle-light; we are hardly aware of its being day, till night returns again. It takes three or four days to accomplish the work of one.

Large quantities of American apples have been brought into Liverpool recently, but the most of them have been of indifferent quality, and badly gathered and picked, and hence they do not command high prices, nor do us any credit; nor can the shippers gain by the operation. There is an unfailing market here for our orchard products, but to make the shipment of them profitable, it is absolutely necessary that select varieties be sent, that they be carefully hand-picked and packed in the best manner. One barrel will then sell for as much as three or four; and the freight, which is the great item, will be no more on a barrel that will sell more readily for \$5, than one that will bring only \$2. Many of the apples I see here cried up as “nice American apples,” “beautiful American apples,” &c., would scarcely sell at all

in our market; yet they are sold here at 3 to 6 cents each.

The English people have fairly given up growing apples for market, unless it be Codlins, &c., that come in early for cooking, and *Beaufins*, &c., for drying. They see it will be impossible for them to compete with American orchardists. Yesterday I examined two or three hundred varieties in the fruit rooms of the London Horticultural Society, and among them all there was not a single large, clear coloured fine looking specimen. One would suppose, at first sight, that they were all wind-falls, gathered from under the trees last August. The *Roxbury Russet*, *Fall Pippin*, and *Rhode Island Greening*, were among the best specimens, and they were not half the size we grow them. The most esteemed varieties pointed out to me by Mr. THOMPSON, such as *Pearson's Plate*, *Warsley's Pippin*, *Pomme Royal*, (not our *Pomme Royal*) *Golden Harvey*, *Sturmer Pippin*, &c., are small inferior looking things,—in size from that of a small *Pomme Gris* to that of a *Siberian Crab*,—but they are generally harder and richer than ours. The Newtown Pippin and Roxbury Russet come nearer the English taste than any thing we cultivate. I had some Northern Spy and Melon with me, that I have here now in London, in fine condition. They have elicited the admiration of all who have seen them. There are indeed, no such apples to-day in England. The Northern Spy may be sent to Covent Garden market, just as well as to Fulton or Washington markets, New-York. The pears in the markets here now, are from France or the Island of Jersey. They come in half-bushel baskets, containing 50 to 100, according to the size of fruit. They are packed in very dry soft meadow hay—a layer of this hay two or three inches deep, is laid on the bottom, then a layer of fruit, then another of hay, and so on to the top,—the fruits are not allowed to touch, and in this way they go any distance with entire safety. I saw at Liverpool little baskets of *Glout Morceau* and *Chaumontel*, 50 in each, sold for \$3 to \$4 each, to the confectioners and market-women to retail.

In Covent Garden Market, which is head-quarters for all rare and choice Garden commodities, I see fine *St. Germain*s, (the old one,) *Marie Louise*, *Passe Colmar*, *Winter Nelis*, *Beurre Rance*, *Easter Beurre*, &c., sold at 12½ to 18½ cents each. If we ever succeed in raising pears beyond what may be required for home consumption, they will find market and good prices here. Not one person in a thousand, I might say five thousand, ever tastes a fine pear. There is also, a fair supply of new potatoes from Holland, sold at about twenty-five cents per quart. There is a plenty of Asparagus, Brussels Sprouts, Rhubarb, Mushrooms, and all other vegetable luxuries. The Flower Market is very rich. Bouquets are made up very tastefully by women who buy the flowers from the Florists and make a business of preparing and selling the bouquets. You can have a

nosegay for a penny—a single rose and a leaf. For a shilling (25 cents) you can have a pretty bouquet of Roses, Primroses, Heliotropes, Azaleas, &c. Go higher, and you get Camellias, Epacris, &c.—higher still, and you get Orange Flowers, Cape Jasmines, Cyclamens and Euphorbias; and if you offer half a guinea, (\$2.50) you get a gem of beauty, combining all these, arranged with exquisite taste. So much for fruits and flowers, and I find that I must close on that head.

I found on my arrival in London, that the Smithfield Club was holding its Annual Christmas Show of Fat Cattle. I embraced the opportunity to see it. The animals were all enormously fat, even to a downright deformity,—in many cases, huge unwieldy masses of fat, not inappropriately termed by some, “animated oil-cake and beet-root machines.” The fattening process in the case of these animals appears to be carried to an extreme; no market requires it, and no profit can result from it, nor is any expected, I believe.

The purposes of the club are to induce experiments that will test the capacities of the various breeds for fattening, and the effect of different sorts of feed and modes of feeding. It undoubtedly brings out results that will be highly useful to the breeders and feeders of animals. Those who are engaged in these experiments are able to carry them out to any extent, and the public at large have the benefit of them. No restrictions as to feed are imposed; but the articles of food must be certified, as well as the age of the animals. The oxen and steers are divided into six classes, according to age, weight, &c.; cows and heifers into three classes, according to age; sheep into ten classes, according to breed and age; pigs into four classes, according to age. In the first class of oxen and steers, three premiums, amounting to £50 (\$250) were awarded; in the second the same; in the third \$225, and so on. From this you will see how considerable, I ought to say how princely, the premiums are; and so they ought to be, for most of the competitors are Princes, Dukes, Earls, and other nobles.

His Royal Highness Prince ALBERT, the Queen's husband, is an active member of this Club, and is showing masterly skill in the breeding and feeding of various sorts of live stock. He carried off the first prize of £30 (\$150) in the first class of oxen and steers, for a Hereford ox 4 years and 6 months old, fed on oil-cake, roots, bean meal, hay, and green food. The animal was very attractive. When I saw him, three of the best artists were taking his portrait. He was a low, small animal, of a dull red colour, with a white face and chest. He belongs to what is called the white faced, or new Hereford breed. There were specimens of Short Horns, Devons, Scotch, Welsh, &c., all the most perfect of their kind. The show of pigs and sheep was varied and highly interesting; but I will not trouble you now with further details. P. B., in *Gen. Far.*

GRAFTING HUMBUGS.—One of the most learned writers in the art of grafting, M. Thouin, who has taken the pains to count up, and classify, and christen, all the different styles of grafting, calling them after this fashion *à la Banks, à la Buffon*, to the number of *forty* different varieties, enumerates last the Virgilian graft; this was thus effected: a hole was bored across the diameter of a walnut tree, and a vine branch was passed through it while yet in connexion with its parent stem; after a little time the branch was cut off, and it was said it would then be found united to, and growing upon, the walnut. This has been very properly questioned, not as to the fact, but as to the nature of the union. It was not a true graft; the wood of the tree may have supplied nutriment to the branch, not by union of its vessels, but by the decay of the parts surrounding it. From the nature of the case, such a union could be but short lived. This may therefore furnish us with a clue to the explanation of some of the monstrous vegetable unions which the perverted ingenuity of man has endeavored to effect. We are not, however, to consider our ancestry as the sole perpetrators of these various freaks; they prevail even to the present day. The traveller in Genoa or in Florence may without any difficulty, beyond the pecuniary one, probably of some magnitude, become the fortunate possessor of a tree almost as wonderful as those of which casual notice has been taken. In a classically-formed flower-pot you see a plant of some size, and of a graceful but most anomalous appearance. On this side you would say it was a jasmine, heavily laden with odoriferous flowers; on the other it is a rose blushing with thickly-clustered blossoms; and, again, on the third aspect, it is a honeysuckle bursting with sweet-smelling buds. Stranger still! look at the stock, and by the leaves of the few branches which it is allowed to put forth, you are ready to believe it to be either a myrtle, or, as the case may be, an orange or a pomegranate. Of course this is a mere cheat, spite of the earnest assertions of the horticulturists, who protest that the various plants are all grafted upon the common stock of the orange or myrtle. But it is a cheat of a most ingenious kind, such as would perhaps scarcely be discovered by any but an acute and botanical eye. This *lusus* of art is thus made: the "stock," of myrtle or other plants is headed, cut down to a proper size, and then tenderly *bored* with an auger right through its middle until the instrument comes out at the roots, when it is withdrawn. The thin and flexible stems of three young and thriving plants of jasmine, rose, and honeysuckle, are passed up together through the now hollow stock, until their summits emerge at the top of it: the four plants are then carefully potted in a good-sized pot, with a rich compost around their roots. With much care, in time, an elegant compound plant makes its appearance; the horizontal enlargement of the three enclosed stems forces them into such close

proximity, that they wear all the appearance of being united into a common stem, and in this condition at the flowering period, they are exposed for sale, and fetch good prices as triumphs of horticultural skill, not over the obstinacies, but actually over the *laws* of nature! It was no doubt by some such trick as the preceding that the wondering eye of Evelyn was deceived when he was shown the rose *grafted* on the orange tree, and the Plinian marvel had doubtless its origin in a similar ingenuity.

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GRAFTING GRAIN.—Some attention has lately been paid to the possibility of grafting Monocotyledonous plants, and amongst others, experiments have been made on grasses. The results, as stated in a notice in the "*Annales des Sciences Naturelles*," for Sept., 1846, are so curious, that, without at all pledging ourselves for their accuracy, we cannot resist the wish to call the attention of our readers to the subject. Much has been done to improve the produce of some of our cereal grasses, but perhaps in general, at least in wheat, the bulk has been more affected than the quality. The Bristol Red, for instance, is extremely productive, but millers are very shy of buying, on account of its coarseness; and bakers who are so unfortunate as to receive flour made from it, are sure to be loud in their complaints, as it imbibes so little water, probably from deficiency of gluten. The great point is, if possible, to combine increased bulk with quality, and it would be at least worth trying some experiments in this direction, similar to those which we proceed to notice.

Signor CALDERINI, of Milan, commenced his experiments in 1843. Having observed that grasses have at each knot a shoot inclosed in the sheath of the leaf, which can be easily drawn out when the plant is young, he introduced some of these into plants of the same species, having previously removed their young shoots, and found that more than half of them succeeded. He then extended his operations to grasses of different species, and succeeded in grafting Panic on Millet. The only difference observable in the grafted individuals was, that they ripened their seed rather later.

He then conceived the notion of improving the vigor of species by grafting delicate and tender varieties on robust stocks, more capable of contending against changes of temperature. Having observed the vigorous growth of *Panicum Crus Galli* in the rice fields, he replaced the young shoot or bud of the grass with that of rice, and found the grains produced by the grafted plant much larger than those of ordinary spikes. These grains were then sown, and he had the pleasure of seeing them from the first sprout more vigorously, and, in the sequel, quite free from the disease called *brusone*, which is so frequent in newly turned up fields, while ordinary grain sown in the same soil was less productive, and the plants diseased. The difference, both in the height of the

plants and in the produce, amounted to a third. The grains were of the same size in the two cases. He also observed that the new variety was less impatient of drouth, and, in consequence, expresses a hope that it may be possible to cultivate it where there is only sufficient water to keep the soil moist. *M. J. B. Gard. Chron.*

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HORSE CHESTNUT FLOUR.—That the seeds of the Horse Chestnut contain a large quantity of flour is well known; and attempts have been made to convert them into bread. But the Horse Chestnut is bitter and acrid, and, in its natural state, unfit for human food. Our readers will therefore be glad to know that pure flour has been obtained from Horse Chestnuts by very simple means. *M. PLANDIN*, the discoverer of the process, gives the following directions for its preparation: The chestnuts are to be reduced to a pulp, to which an hundredth or even a fiftieth part by weight of carbonate of soda is to be added; the whole is then to be washed and strained. In this way samples of flour were obtained perfectly free from any bitter taste, white, and equal in every respect to potato flour, which, there is some reason to believe, will to a great extent be superseded by that extracted from the hitherto comparatively useless Horse Chestnut. *Gard. Chron.*

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PLANTING THE SLOPES OF RAILROADS.—A Neapolitan ambassador at the English court, said that during a residence of ten years in London, he had eaten but one ripe fruit; and that was a *baked apple*!

Whatever allowance is made in this assertion for southern exaggeration, it is quite certain, that without the help of walls and *espaliers*, the greater part of the best fruits, particularly

grapes, would not ripen in the open air in the climate of England; and it is very nearly the same with us. At this moment in England, the sides of the slopes or deep cuts, made by railroads, are considerably used for *espaliers*, wherever these cuts have revealed a rock firm enough to be used as the surface of a wall. A border or bed at the foot of the slope, is filled with good soil; peach and apricot trees occupy the lower part; grape vines, planted here and there, climb up above these trees, and may be extended over an indefinite space.

Although our country is less irregular in surface than Great Britain, and consequently the cuts of the railroads are less frequent and not so deep, there is, however, in this fact an example that we might follow with advantage.

In other sections, where these cuts have exposed fertile soil, they have tried plantations of vines supported by props. These are indeed, true artificial hills, which, when they have more or less of a northern exposure, are sheltered from the cold winds, and give a reasonable hope of the possibility of ripening the grape in the open air, without the aid of the *espaliers*. In ordinary seasons, the Belgians eat *verjuice* under the name of grapes; our epicures pay every year a considerable tribute to France, for the Chasselas de Fontainbleau, which is brought for them at great expense, and for which they are taxed accordingly.

The culture of the vine would give much better results on our soil, if, on one hand, we made use, like the English, of every spot favorable to the production of the grape; and if, on the other, we took care to limit ourselves to the cultivation of those kinds which ripen their fruit early—the only ones really adapted to our climate. *Journal d'Horticulture Belge.*

DOMESTIC NOTICES.

HORTICULTURAL HONOR.—We notice with great pleasure that the Massachusetts Horticultural Society has voted *Col. WILDER*, who has, to the unanimous regret of the members, retired from the presidency, after many years of most successful labor, a handsome piece of plate, valued at a hundred and fifty dollars. *Gen. DEARBORN* has also received a like token in the shape of the society's gold medal, as well as *Mr. TESCHEMACHER*, the scientific Secretary of the Society, in a piece of plate of the value of fifty dollars. It is easy to see why public institutions are well managed in Boston—the associates not only select the most able men, but are never unmindful of the merit of past services.

Col. WILDER in the mean time, seems not to be allowed to rest on his laurels—for we notice that he has been appointed president of the new agri-

cultural society of Norfolk county, and Councillor to the State.

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THE MISLETOE.—I have sent you, by express, a package of the seeds of the misletoe, which I trust will reach you in a good state of preservation.

As this plant is not so well known at the north as here, where it frequently covers the branches of large trees so completely as to make them present the appearance of magnificent evergreens, I will venture to say a few words regarding its growth, which may not be unacceptable. The novel effect of these trees covered with misletoe, is greatly heightened by the numerous transparent berries, which, at certain seasons, enliven every branch of the plant.

The seeds of the misletoe are deposited by birds

on the bark of the trunks and branches of trees; and the rootlets which they send out insinuate themselves through the crevices of the bark, and thus become incorporated with the wood.

The young misletoe plant seems readily to imbibe the ascending sap from the wood of the tree upon which it grows, and this it converts into a proper juice adapted to nourish its own structure, by the aid of its leaves.

The ascending sap of most trees being so nearly alike, the misletoe seems to grow with almost equal facility on a great number of different species. It is found here upon the persimmon, the honey-locust, and upon oaks of all kinds, and I think you can get it to take readily upon almost any deciduous tree. Yours sincerely, *Wm. Sumner. Pomaria, South Carolina, Jan. 16, 1849.*

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EARLY PEAS.—Dear Sir: I recommend your readers who care for early peas, to try the mode recommended in the Horticulturist, vol. 1, p. 481. I did so last spring, and succeeded in getting a fine crop far ahead of any of my neighbors. It is very little trouble, and the result perfectly satisfactory. Yours, *A Jerseyman. Feb. 15, 1849.*

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THE HORTICULTURIST OF LYNN.—We have been very much struck, on looking over the list of premiums awarded last year, by the Massachusetts Horticultural Society, with the number of times with which the name of one gentleman, appears there. It must be remembered, that so great is the competition, and so numerous are the cultivators about Boston, that it is by no means an easy task to carry off many prizes at the exhibitions which take place in that society. The gentleman to whose success we refer, is OTIS JOHNSON, Esq. of Lynn. We have several times visited the garden of this most zealous and accomplished amateur, and have always been exceedingly gratified at the admirable system of fruit culture pursued there. A single walk through such a garden would be more instructive to thousands of our readers, than all the explanations of systems of pruning, training and subsoiling, that one could obtain in a fortnight. The numerous prizes which the products of that garden have carried away from the Boston shows, prove more conclusive than any commendation of ours can possibly do, the superior horticultural skill and intelligence of Mr. JOHNSON—who, by the way, we trust will pardon our thus publicly noticing what we cannot but think deserves public commendation.

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PERFECT CAMELLIAS.—It is very rarely that any novelties are offered to the floral world, so well deserving of attention as the two new Camellias, which we observe in our advertising columns, are now offered for sale by Mr. CADNESS, of Warren's Gardens, near Boston.

The flowers of these fine American seedlings exhibit the most exquisite form and colour, and are not surpassed, we may say indeed scarcely

equalled, by any other varieties originated in either hemisphere, and we gladly recommend these two sorts to floricultural amateurs, as certain to give complete satisfaction.

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OHIO FRUIT CONVENTION.—We give the following brief notes made on looking over this interesting pamphlet.

Early Harvest Apple—regarded by the Convention as the best early apple.

Summer Queen—much esteemed as a fine fruit.

Early Chandler.—This variety, one of the sorts introduced into Ohio by Mr. Putnam, more than 50 years ago, is described as a valuable early sort—excellent for cooking, before full maturity, and then a fine dessert fruit. It is too tender for a market fruit. (We think, from this description, this variety is an old acquaintance of ours, under another name, and would be glad to verify our supposition by specimens at the season of maturity.—ED.)

Golden Sweeting, is highly commended.

Jersey Sweeting—highly recommended—especially for stock feeding.

Fall Pippin—a great variety of opinion on this fruit, owing, no doubt, to a confusion between this and the Holland pippin, two very distinct sorts.

Porter—"a profuse bearer of fair, handsome, and valuable fruit in northern Ohio."

Rambo—great bearer, much esteemed, sometimes water-cored.

Westfield Seekno further—"has been grown on sandy loam, white-oak, clay and limestone soils, and universally decided first rate."

Springer's Seedling—a new, late-keeping apple, highly spoken of,—the fruit keeping in sound condition for a year.

Seever's Seedling—"tender, sub-acid, juicy, with a delicate pear flavor."

Rhode Island Greening—a good deal of difference respecting the merits of this popular fruit in Ohio—the opinion very prevalent that it had formerly been very fine, but of late years had declined in quality.

Mr. ELLIOT remarked that a supply of requisite food given to the trees would render them uniformly productive. He had found the application of leached ashes to cause the fruit of the trees mentioned by him last year, to become alike, (fair and good,) and he would recommend others to make similar attempts at improvements. The subject of *special manuring* was at this time exciting much attention. He believed that ten years from this, a description of the nature of the soil requisite to grow a variety perfect, would be as necessary to a work on fruits, as the description of a fruit."

PEARS.—*Louise Bonne de Jersey*—fine in Ohio.

Duchesse d'Angouleme—"one of the best fall pears."

White Doyenne—"one of the very best."

Seckel—"acknowledged by all to be of the first class, and claimed by many to be exempt from

fire blight in all cases. Mr. ELLIOT has grown it upon the roots of the mountain ash, and the largest specimens he ever saw, were from a tree on the thorn root, exhibited at Cincinnati, in 1843."

GRAPES.—*Catawba* and *Isabella* "are, without question, the best varieties for out of door cultivation."

Mr. HAMPTON exhibited a *white* grape, a seedling from the *Isabella*, which is of good flavor, but rather thick skin; rather sweeter than the *Isabella*.

The following is the list of apples decided upon by this convention at their two annual sittings, viz:

FIRST RATE.

Early Harvest,	Golden Sweeting,
Summer Queen, (in southern Ohio,)	Am. Sum. Pearmain, Lowell,
White Juneating, (for early ripening,)	Jersey Sweeting, Porter,
Large Yellow Bough,	Fall Pippin,
Summer Rose,	Cooper,
Early Strawberry,	Am. Golden Russett,
Red Astrachan, (for market,)	Roxbury Russett,
Wine,	Willow Twig, (only for long keeping,)
Rambo,	Green and Yellow Newtown Pippin,
Westfield Seekno further,	Swaar,
Belmont or Gate,	American Pippin, (only as a keeper.)
Yellow Belleflower,	
Esopus Spitzenburgh,	
Summer Queen,	

SECOND RATE SORTS—or those for cooking.

Geneting,	Gloria Mundi,
Early Chandler,	Gilpin,
Gault's Belleflower,	Baldwin, (dry rots in northern orchards,
Summer Cheese,	Michael Henry Pippin,
York Russet,	Cracking apple,
Maiden's Blush,	Kaig's Spitzenberg,
20 ounce apple,	Black apple,
Sweet Pippin,	Pumpkin Sweeting,
R. I. Greening, (with exceptions,)	Limber Twig.

The convention passed the following resolutions before adjourning:

Resolved, That this Convention, seeing the necessity of union in action among pomologists, recommend to the National Convention to be held in New-York, October 10, 1848, the appointment of a future National Convention, at a time suited to the attendance from delegates of State Conventions.

Resolved, That we recommend to pomologists throughout the States and Canadas, the calling of Fruit Conventions for the coming year, at such time as will enable delegates to attend the National Convention, without loss of time.

Resolved, That the next and third session of the Ohio State Convention of Fruit Growers, shall be held at Cincinnati, in the fall of 1849; the particular time to be left with the President and Secretaries of the State Fruit Committee, who shall give due notice through the Ohio Cultivator and other papers.

Resolved, That we now extend a cordial invitation to all the fruit-growers and nurserymen in this and other states, to meet with us and examine and discuss fruits next year, at Cincinnati.

The remaining 30 pages are occupied with an

interesting detailed report on proved varieties, by the secretary, Mr. ELLIOT, with letters on fruit-culture, by Mr. SPRINGER, Prof. KIRTLAND, Dr. BARKER, &c. An able State Committee is appointed, with the President, A. H. ERNST, Esq., at its head; and altogether, we look upon this association as working steadily onward in the right path.

COVERING THE SOIL ABOUT FRUIT TREES.—*Dear Sir*: I have noticed, with interest, the remarks of Mr. CLEVELAND, and others in this journal, on the subject of covering the surface of the soil with substances, to keep it of an uniform state of moisture, &c.

I will add my mite in favor of this process. I adopted the same plan last spring, covering the ground with straw two inches deep, laying it down smoothly and closely beneath the trees, for a space as large in diameter as the spread of the branches.

The result has so far exceeded my expectations, that I am tempted to believe that there must be some stimulating as well as protecting influence in the straw.

I have gathered from a few quince and plum trees, (the only ones to which the application was made,) fruit of nearly double the size of that from other trees in the same soil; and the plums held their fruit better than I ever had any to do before on my premises. Yours, *A Constant Reader. Philadelphia, January 16, 1849.*

PRUNING PEACH TREES.—In regard to peach trees, I have for the three years past, effectually tried your shortening-in system, and with the happiest results, fully confirming all that you say in its favor. *A Connecticut Subscriber. Hartford, Nov. 15, 1848.*

CHEAP GREEN-HOUSES.—I have been especially interested in the recent articles in regard to Green-Houses. To one who has in any degree the love of beautiful plants, and to whom a well arranged flower garden in summer is a sort of elysium, the best method of perpetuating his blooming favorites, and carrying, as it were, mid-summer into the depths of dreary winter, cannot be devoid of interest. But to persons of moderate incomes, the expense attending the heating of a green-house is a serious obstacle; and my present design is to suggest a plan by which fire heat may be wholly dispensed with. My plan is this:

In a niche of my dwelling, formed by the main building, and a wing about 9 feet by 16, and a southeastern exposure, I propose to build a model green-house.

The two open sides of this niche, I would enclose with upright glazed sashes, in the usual manner, upon a brick or stone foundation, well laid in mortar, and sunk to a proper depth below the surface, and covered with a single glazed roof.

In the centre of this enclosed space, I would sink a pit to the depth of 7 feet—3 feet in width,

by 10 in length, and well bricked up, leaving a space of 3 ft. in width all around; this space to be filled in with dry tan or some other similar material, to the depth of from four to six inches, and covered with a good matched floor.

Above this pit, I would have my stage for the flowers suspended, by weights, in such a manner that it may be let down with its contents, readily into the pit below, over which I would have a double sash, shut down closely. Into this pit, I would have the stages lowered every night, and in very cold, cloudy weather, to protect the plants from the frost. But in fair days, the heat of the sun, together with the heat communicated from the sitting room, would enable them to emerge with safety from their prison, in perfect health and vigor.

This, it seems to me, would give all I could desire in a small green-house, and at a very trifling expense. Should this plan be found practicable, it can be applied to green-houses of any possible shape or dimensions. The danger of withering some plants by the dry and heated atmosphere in the vicinity of the furnace, while those at a distance would be suffering from the frost, would be entirely obviated; and it is believed the plants would thrive far better than in green-houses heated in the ordinary way.

I design in this article, merely to throw out suggestions, leaving the practical man to fill up the minutia himself. I would, however say, that I would have the weight boxes suspended by ropes, each running over pulleys, and attached near the corners at each end of the stage, to ensure steadiness of motion. There should be an excavation at each end of the pit, sufficiently deep to enable them to play wholly beneath the floor. I make these suggestions for your practical consideration, and shall look for your opinion in reference to the feasibility of the plan, in the columns of your journal. Yours truly, *George W. Calkins, M. D. Germantown, Columbia Co., N. Y.*

[We fear our correspondent would find his stage, when filled with plants, rather a heavy thing to manage with weights in the mode he proposes. Would not double shutters answer the purpose more satisfactorily? Only the hardier green house plants could be kept in this way, and such are easily kept in pits or green-houses, with mats of outside covering to the glass, without fire heat. Ed.]

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DISPOSITION OF PEAR CUTTINGS TO ROOT—

Last spring I received from a friend about 2 doz. pear stocks in bud. As soon as the buds began to swell, I cut off the tops, with the label upon them and stuck them in the ground, beside the stock from which they were taken, in order to mark the varieties until I had made a record of the same—however, they were permitted to remain during the whole season as put in, and this last fall I took them up, each one having rooted finely, and grown from three to six inches. They are equally as

good stocks now, as some I purchased at \$20 per 1,000. Why would not this be as good a plan as any other to propagate pear stocks? Soil a loamy mould. *A. F. Lancaster, Ohio, Feb. 1, 1849.*

ORCHIDACEOUS PLANTS.—*Sir:* Having shown, in my letter in the January number of the Horticulturist, that orchidaceous plants are found everywhere, except in the very coldest regions, or where everlasting dryness reigns, but still wishing to revive our feeble attempt at recommending to your readers this most singular and exquisite tribe of plants, we will confine our observations, for the present, to some remarks on the general treatment of American species, to which we will add a few of those really worthy of cultivation, and with reciting a few of those remarkable peculiarities so unusually met with in other plants.

Ere we proceed with our remarks, it is right that we should explain the term *Epiphyte* to those who may not understand it, as it is frequently met with in every work on botany, or orchidaceous plants. The word *Epiphyte*, properly speaking, is applied to all those plants, whether *Orchids*, *Mosses*, *Lichens*, or any other plants that grow upon *trees*, *stones*, or other *plants*, without deriving any nourishment from the material on which they grow. Hence, the term was originally derived from two Greek words,—*epi*, upon, and *futon*, a plant; (from the supposition that they always grew upon trees, or other plants.) As this derivation did not give general satisfaction, Mr. LYONS substituted for *futon*, the word *fuo*, which means, to grow or be produced; for which he was upbraided by an author of no less celebrity in horticulture than the late Mr. LONDON, who expressed his surprise at Mr. LYONS' ignorance in not deriving it from *epi* and *futon*. But the new derivation has, since then, proved to be the most general and correct; as several specimens of the genus *Brassavola* have since been discovered in Brazil, growing upon stones and bare rocks. Mr. GIBSON also found several species in India, growing upon rocks and stones, among which were *Dendrobium Gibsoni* and *Cambridgensis*. Consequently, the word *fuo*, is now justly acknowledged to be correct by all scientific writers.

Let us now see what progress has been made in their cultivation since their introduction into England, some fifty years ago. In the year 1800, their number in Kew Gardens is supposed not to have exceeded two dozen; nor does it appear that even botanical collections were better furnished with them. It is not to be supposed that botanists were not aware of their existence; for we find they were occasionally introduced into England. But the proper mode of cultivating them was then unknown; hence, the impossibility of increasing them, or prolonging their existence to any lengthened period after their introduction. Before Mr. CATTLEY turned his attention to them it was customary to submit them to the same

treatment as was conferred on other tropical plants, once having ascertained they came from a tropical country, without making any inquiry as to their habitats, or the nature of the atmosphere in which they luxuriated. The changes of temperature and season they experienced never occurred to the grower as a matter worthy of inquiry; consequently, plants whose natural habitats, or places of growth, were branches of trees, when submitted to such unnatural treatment, soon ceased to exist.

Mr. CATTLEY having succeeded, to some extent, others viewed his collection with an admiring eye, and also embarked in the same culture, still improving on the method adopted by the first cultivators; so that, after a short period, a few of them were to be found in every good plant collection, till they at length became what Mr. DOWNING, in his note to our former letter, calls the *ultimatum* of British culture. Many difficulties have been thus removed; and it is now ascertained, from experience, that they will not thrive without a soil, drained so as to prevent any stagnant moisture remaining about their roots, and in some cases a high temperature, and an atmosphere nearly approaching the point of saturation.

Having given some account of the difficulties early cultivators had to encounter, we wish now to caution those of your readers, that may possess some of them, against high *night* temperature; as it is the greatest evil attending their cultivation.

That all plants require a season of rest, is a subject that no judicious plantsman will question. We are informed, that in the mountainous islands of the Indies, the air upon the mountains becomes, soon after sunset, chilled, and condensed; and owing to its superior gravity, it descends and displaces the warm air of the valleys. Therefore, nature and reason point out to us the propriety of a lower temperature for all plants at night than in the day time. The best time for this resting season is from the beginning of November to the end of February. All the Brazilian orchids seem to be an exception to this rule; as they are found most active in their growth from the month of November to April, and must then have their season of rest.

The temperature of the orchidaceous-house, during this time, should be kept from 60 to 65 degrees, during the day, and from 50 to 55 degrees at night. It is necessary that the temperature of all plant houses be kept much lower during the night than in day time. The reason is evident. If heat and moisture be applied to a plant in a growing state, it must of necessity grow in proportion to the amount of those agents; as it is in day light only that plants can digest their food, and harden their texture, the amount of digestion and hardening will be in proportion to the intensity of the light they receive. If they are compelled to grow in the dark, they are filled with undigested sap, and their wood becomes watery and soft.

The following extract, from the Theory of Horticulture, fully coincides with these remarks: "The effect of cold is, to diminish excitability of heat to stimulate it; but if the latter stimulus be constantly equal, it may be conceived, that the excitability would soon become impaired or expended. Nature has, however, provided against this result; not only by the fluctuations of temperature, that occur at different periods of the day, but more particularly by the periodical fall of temperature at night, and its rise during the day. An arrangement intimately connected with all the vital actions of vegetation.

In the day, when light is strongest, and its evaporating and decomposing powers are most energetic, temperature rises and stimulates the vitality of plants, so as to meet the demand thus made upon them. As light diminishes, and with it, the necessity for excessive stimulus, temperature falls, and reaches its minimum at night,—the time when there is the least demand upon the vital forces of vegetation. So that plants, like animals, have their diurnal seasons of action and repose. During the day, the system of a plant is exhausted of fluid, by the aqueous exhalations that take place under the influence of sunlight. At night, when little or no perspiration occurs, the waste of the day is made good by the attraction of the roots; and by morning, the system is again filled with liquid matter, ready to meet the demand to be made upon it on the ensuing day. No plants will remain in a healthy state unless these conditions be observed."

Orchidaceous plants, while dormant, require no more water than what will keep their pseudo bulbs and foliage from shriveling; particularly those in pots, as the preservation of their roots in winter is of the greatest importance. And those in pots are found more difficult to keep than when other modes of cultivation are adopted; owing, no doubt, to their being in immediate contact with moisture. As the size of a plant is in some measure proportional to the surface of the organs that are destined to convey food to it, and as a plant gains an additional mouth with every fibre of root; and though those mouths, or spongioles, become dormant or drop off in winter, the preservation of the roots is of the utmost importance. For when they are left to perish, the plant becomes sickly; the amateur is disappointed; he watches in vain to see them expand their bloom,—the only return for his outlay.

Wood-lice are also very injurious to Epiphytal orchidacea, as they eat the *spongiolets*, or young extremities of the roots, by which absorption takes place; consequently, the plants often receive a check by the destruction of those organs when they are in a growing state. Every means should be resorted to in order to destroy them. The best way we know of, is to look over the plants at night with lamplight, and kill as many of them as can be found. A small spring tweezers is very useful for the purpose. After dark, they come

forth from their lurking places, and are readily observed on the *roots*, sides of the pots, &c.

It was to prevent their depredations that Mr. LYONS made his ingenious invention, called the *Onyscamytic Epiphyte stand*, for which the growers of those plants generally owe him a debt of gratitude. (The name seems a difficult one, but is well chosen from the Greek words, *oniscus*, a wood-louse, and *amynticus*, defensive, or used in defence against.) This stand consists of a massive saucer, or feeder with a raised centre, in which is fixed a block of wood of whatever size required; the saucer being always kept full of water, forms a sort of fosse impassable to vermin. They are made of various sizes, to suit convenience.

This is the most natural mode of growing them yet known; as it seems to possess every combined requisite for growing them according to their nature, and in the highest degree of perfection.

They take up no more room than a pot; and if judiciously managed, each block, according to its size, will hold from one to twelve or more plants. They are tied on with fine copper wire and small white tacks, such as are used to nail down carpets. Copper nails, of a similar size, are preferable; they being less subject to rust. The roots are then covered over with thin flakes of hypnum, or some similar moss, neatly tied on, to preserve a little moisture till the plants begin to grow; they will soon protrude their roots, and take firm hold of the rough bark of the wood. This is far preferable to what was formerly used, and to which many of the old school seem still to adhere, viz., lumps of *turf*, *stones*, *potsherds*, pieces of *wood*, *inverted flower pots*, *sand*, &c., were all tumbled together, heaped high in a pot, for no other purpose than endeavoring to imitate nature, in procuring material to which the roots could adhere, and secure a perfect drainage, to guard against too constant a submersion in water, or a superabundance of moisture about their roots.

Towards the end of February, several of the plants will be making their new growth. The temperature may be gradually increased to 70 degrees during the day, and from 60 to 65 at night. Water must also be carefully given to such as require it. Some make it a general rule to shift all their orchids annually, sometime from February to May. This is a practice indeed unnecessary, except in some particular cases; for instance, where a large plant be crammed in a small pot, or such as will otherwise actually require it, keeping always in mind to shift when they show indications of growth; that is, when the plants begin to protrude their roots, as there is then the least danger of a check. This is a matter that is seldom or never attended to, and is of such importance that I wish I could sufficiently impress a strict observance of it. As the season advances, the plants will be getting more active in their growth, and consequently require a gradual increase of temperature. 76 degrees fire-heat, by

the first of May, will be sufficient, and from 65 to 63 at night.

As the sun shines strong by the middle of April, the temperature of the house will often rise to 90 degrees or more, the house can then be opened to any extent required. There is no danger to be apprehended from an increase of day temperature if sufficient air is given, and the blinds pulled over the roof from 10 to about 3 o'clock, to prevent the scorching rays of the sun shining upon the plants. Their supply of water must be also increased, and a moist atmosphere maintained; they live upon it. They may now be occasionally syringed. The best time for syringing previous to the month of June, is about 3 o'clock in the morning. To afford an opportunity of drying the plants during the day, it would be unsafe to frequent the syringe too often at this season; for indiscriminate syringing, before the pseudo bulbs are formed, is often destructive to a general collection. When the water lodges in the young shoots, they soon damp off. The loss of the leading shoot so enfeebles small plants that they are seldom able to make a second effort; consequently their death is inevitable. Syringing with strong force, as is often practiced on other plants, where the removal of green fly and other insects is the object, would be destructive to orchidacea. Our own mode is to let the water come on the plants gently from a fine rose, so as to represent a heavy dew; the house being then shut close, it gives a fine humid atmosphere, and will never over-water any of the plants.

The singular habit of growth of Epiphytall orchidacea, is no less remarkable than the various forms they assume, of which the sportive monstrosities observed in the genus *Catasetum* is the most anomalous instance on record. Sir ROBERT SCHOMBURGK found in Demerara *Monachanthus Viridis*, *Myanthus Barbatus*, and a *Catasetum*,—three supposed genera upon the same spike. A similar specimen is figured in the Botanical Register, as having flowered at the DUKE OF DEVONSHIRE'S, at Chatsworth. A plant of the same species, under our own care, in 1846, produced its normal blossom (*Myanthus Barbatus*.) In 1847 it turned out to be *Monachanthus Viridis*; and in 1848, we had both *Myanthus* and *Monachanthus* on the same stem. A similar peculiarity has lately appeared in the genus *Cynoches*, where two distinct species, *Cynoches Ventricosum* and *Egertonianum* have appeared together.

As our space is limited, we must defer any further remarks for the present. I am, sir, respectfully yours, M. C. Newburgh, January, 1849.

SPECIAL MANURES.—LETTER FROM PROF. KIRTLAND TO THE PRESIDENT OF THE OHIO FRUIT-GROWERS' CONVENTION.—It is with regret that I find myself compelled to forego the pleasure of participating in the doings of your meeting. There are several subjects on which I am anxious to exchange ideas with my horticultural friends. To one of them I will allude by letter.

The 2d vol. of the Horticulturist contains an article on "special manuring" of fruit trees, written by Mr. Downing, which embraces the analyses of the wood of various species, by Prof. Emmons. Several periodicals and scientific publications, both in Europe and this country, have of late contained much that is important in relation to this subject.

Community at large have always known that each species of animals requires peculiar kinds of food, to ensure health, growth, and full development of its powers, and that the kinds adapted to one species, may not answer for another. The cow will starve on that which will fatten the dog.

That each species of the vegetable kingdom is equally select in its requirements of food, has not been generally understood. An indefinite idea has prevailed, that all vegetables will flourish in a soil that in common language, is *rich*.

Both science and experience have, however, shown us that vegetables, as well as animals, must be fed with their appropriate elements of nutrition, in order to flourish. For the last six years I have devoted some time and thought to discover the best and most economical method of supplying fruit trees and wheat with their appropriate food.

The writings to which I have alluded, have relieved the subject of much obscurity, and enabled me to progress with my researches and experiments with more precision.

My farm originally contained very limited quantities of several important inorganic principles of wheat, and those had been so entirely exhausted by bad management, that wheat would literally produce neither straw nor berry.

The pear tree would send forth not more than from two to six inches growth in a season; fruit buds would form in excess, the fruit would be blighted, knotty and deficient in flavor, and in the course of four years the tree would exhibit the evidences of old age and disease. In the same soil, the apple tree would succeed somewhat better, while the peach and cherry would flourish both in regard to the production of wood and fruit, to the extent of my wishes.

Under these circumstances, I set myself to work to discover the cause of such results, and soon became convinced that it was a deficiency of some kind of nutrition. The analyses of Prof. E. indicated the kind.

Plaster of Paris, clover, leached ashes, and a small addition of barn-yard manure, brought some of my barren fields, at the end of two years, into a condition in which they produced large crops of wheat straw, but yielded only eleven bushels of wheat to the acre.

By supplying one of these lots with a second dressing of plaster, turning in a large crop of clover, and adding subsequently a supply of barn-yard and slaughter-house manure, and phosphate of lime, I obtained nineteen bushels of superior wheat to the acre, besides that which was wasted

by long continued rains. The straw was not heavier than in the former year.

A dressing of phosphate of lime, ashes, and barn-yard manure, with a limited supply of salt, has effected an equally favorable change with the growth and fruits of my pear trees.

The limits of this communication will not allow of my detailing all my numerous experiments. I will, however, say, in general terms, that they have been in the highest degree satisfactory, and have amply repaid all expense and trouble.

A fruit tree or a grain field can be fed with as much success and precision as a cow or horse, and an half starved fruit tree is no more sightly nor profitable than an impoverished animal.

The late Mr. Marvin, of Beaver county, Pa., once observed to me, that he "had no sick sheep in his numerous flocks, owing to the circumstance that he visited them daily, and saw that they were well fed."

The horticulturist who pursues a similar course with his fruit trees, will suffer very little from their unhealthiness or unproductiveness.

Since I commenced the plan of high feeding, and have banished from my grounds every tree propagated on a sucker, not a solitary pear tree has been affected with *fire blight*. These circumstances may have been coincident, but at the same time accidental. The subject is, however, worthy of further attention.

The analyses of Prof. Emmons have been the basis upon which I have founded my experiments during the last year.

At the first view of the subject the culturist may be discouraged with the apprehension that the means of supplying his trees with inorganic elements cannot be commanded. In this section of the state, the greatest difficulty will occur in procuring potash and phosphate of lime; yet the materials usually wasted about the dwelling of a farmer, would furnish the required number of fruit trees with these elements. Leached ashes from soap-making and pot-asheries will supply the former in abundance, and the latter is derived principally from animal bones. Every fragment of bone, and the remains of every animal, large and small, should be carefully preserved, and applied to the roots of fruit trees.

It may, however, be obtained in limited quantities from urine, excrement of fowls, peat and decaying vegetable fibre, and in some soils and waters it naturally occurs.

According to Raspail, it abounds in such quantities in the leaf of the poke-berry, (*Phytolacca*.) that under certain management the foot stalks will be coated with acicular crystals of this salt.

It may, however, abound in a soil in an insoluble state, in which it cannot be converted to nutrition by the growing tree. The addition of ammonia or common salt, will at once enable it to pass into a state of solution in water, when it may be taken up by the spongioles of the roots.

Common salt affords of itself little or nothing

that is nutritious to a fruit tree; but it acts indirectly upon the phosphates. In no other sense is it either a stimulant or nutrient to vegetation.

The more abundantly a tree is furnished with enriching compounds, containing phosphate of lime, the greater the quantity of salt that may be safely applied as a dressing. *J. P. Kirtland. Cleveland, Sept. 20, 1848—Ohio Fruit-Grower's Report.*

OSAGE ORANGE|HEDGES—SOWING THE SEED.—*Dear Sir:*—I believe you are conferring a real favor on many readers of your Journal by commending to their favorable attention the *Osage Orange* as a hedge plant. I have given much attention to this subject during the last three or four years, and have repeatedly examined the oldest hedges of it in the country (at Mt. Airy, near Philadelphia, and in the vicinity of Cincinnati;) I am almost personally familiar with the hedge plants of Europe; and I do not hesitate to say, that as far as present experience indicates, the *Osage Orange* is the most beautiful and perfect hedge plant as yet known, for all countries where the winters are not too severe.

In regard to this question of *climate*, I am firmly of the opinion that it will be found to succeed, as a hedge plant, on soils not too wet, as far north as the New England states. The young plants will need earthing up, or other slight protection the 1st & 2d winters, and the tops will doubtless be killed to a considerable extent for 2 or 3 years; but not so as to injure the hedge, inasmuch as close pruning is indispensably necessary each spring, to thicken the hedge. In this vicinity, (Columbus, O.) our winters are quite variable, and *severe* at times—the thermometer not unfrequently as low as 10 to 12 deg. below zero; and we have trees of the *Osage Orange* 10 to 12 years old, growing thriftily, and not the smallest twig injured by the winters—although when young, the plants were every year more or less injured. I have known the plants to stand the winter in western New-York, with as little injury as here.

SOWING THE SEED.—It is on this point that I desire particularly to remark. In the February No. of the *Horticulturist*, p. 390, speaking of the *osage orange*, it is stated that "good seeds are almost as easily raised as peas." This is true of the seeds when taken from the ripe fruit in autumn, and put immediately into the ground, or in a box of earth or sand, so as not to allow them to become thoroughly *dry*. But the seed as brought into this country from Texas and Arkansas, although perfectly *good*, is almost sure to fail unless prepared by long soaking, or freezing in moist earth before sowing; (or sown in the fall.) Having sowed the seed each spring for three years past, and sold large quantities to others, I have taken much pains to learn the best methods of managing the seed to ensure its vegetation, and now find but little difficulty if the seed is plump, has not been *heated*, and is not more than 2 or 3 years old.

My plan is, to mix the seed with sandy earth in a box, (not water tight,) as soon as obtained, in fall or winter; wet it thoroughly, and place it where it will be exposed to freezing and thawing, without becoming dry, during winter; then sow in good ground (like peas,) in spring, when vegetation has become brisk. If the seed is not obtained in time for freezing, soak it in water in a warm room, (or stand in a hot bed,) for 5 or 6 days; then turn off the water, and mix the seed with 2 or 3 times its bulk of fine earth, and let it stand in a warm place, keeping it moist and stirring occasionally, from three to six days longer—or till the seeds begin to show signs of sprouting; then sow, and if the weather is warm, as it should be, the seeds will come up as certainly and quickly as peas.

PLANTING THE HEDGE.—This should be done when the plants are *one year old*—(they will then be from 1 to 2 feet in height according to the soil, climate and culture.) If allowed to stand two years before transplanting in this climate at least, [and when the soil is rich] the plants become too large, and the roots are unavoidably much mutilated in digging, owing to their great length, and downward tendency. In taking up some plants the past fall of only one summer's growth, and the tops not over 18 inches high, I found perpendicular roots *three feet in length*. In planting, the roots are shortened 10 to 12 inches, and the tops cut off nearly even with the ground. Respectfully, &c., *M. B. Bateham. Columbus, O., Feb.*

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FRUITS AND FRUIT TREES.—I have been a constant reader of the *Horticulturist* from its beginning, and have been much gratified and instructed by its perusal, especially of those parts of it which have treated of the culture of fruit and fruit trees.

For some ten years past, I have expended more or less each year in attempts to cultivate strawberries, but as yet to no profit, having been blessed in all my selections with an abundance of staminate or barren plants. However, with my dear-bought experience, and information gained from reading most of the articles published on the subject, I trust I may yet meet with, at least, a limited degree of success. My experience fully coincides with the views of Mr. LONGWORTH, on the vexed question of strawberry culture.

The suggestions and instructions of yourself and others, on the subject of special manures for fruit trees, have induced me to *lime* and *ash* my Pear and Apple trees, and *ash* my Cherry trees, of which latter I have about 160, most of them just beginning to fruit. The fact that analysis shows the bark and wood of the pear and apple to be composed mostly of potash and lime, would of course seem to indicate that the use of these "special manures" would be beneficial, and in fact, absolutely necessary—but when I read as for instance, in the last August No. of Hovey's Magazine, (page 382,) "that the subject of special

manures is deluding too many inexperienced cultivators, and that practical men know too much to be taken in by such *one ideas*," I am set all aback. "Who shall decide when Doctors disagree?" Very truly yours, C. T. Cherry Grove, Buffalo, Jan. 16, 1849.

Touching the special manures, we venture to correct our correspondent's quotation, by making it read "Who shall decide when" Hovey "disagrees?"—as we do not know of a single experienced cultivator besides, who doubts the value of special manure at the present time. Here friend HOVEY considers it "quackery," but he is so fond of disagreeing that we cannot but think it one of his pleasant jokes. His position is what the French call the "*extreme left*," and if Sir ISAAC NEWTON were alive now, and had just propounded the theory of gravitation, H. would, very likely, in his lively and amusing way, pronounce it a "delusion." Ed.

THE FROST GAGE PLUM.—Sir: As some considerable animosity has of late shown itself from a certain quarter against this variety, I should be glad to say a few words to the readers of the Horticulturist on the subject. It was selected as one, among the small list recommended by the American Congress of Fruit Growers, as worthy of general cultivation, and in your work on Fruits you say of it, "Scarcely yielding to any other late variety, in the excellence of its flavor." While I think, that when preserved in a proper manner *it surpasses all others*, either late or early, in the *superiority* of its flavor. And of this I intend, if spared again, to meet with the Pomological convention, to give all the members an opportunity of judging for themselves. But certain persons, either because they cannot grow it well in their light sandy soil, or because, as they say, "*It grows in large quantities about Newburgh from suckers*," would be willing to annihilate it altogether, or to place it in a *Rejected list*. A strong evidence of its great value is given in the fact that it is grown in large quantities in the very neighborhood where it is best known and most highly valued, and where large numbers of bearing trees must be possessed in order to obtain suckers in large quantities. Indeed, its merits are so well known, in one of the best plum districts, that I have about eight thousand of different sizes, in my nursery, and not half that quantity of any one other variety. Another objection is made from the statement that *it knots so badly*. So indeed, will many others of the best kinds, if totally neglected; and I could show you on my own grounds, and in the immediate vicinity, many large trees of the Frost Gage, as smooth, and apparently as healthy and free from knots as any others; and where *over \$300 were obtained the past fall from the fruit from less than one-fourth of an acre*, while some others much younger or smaller at least, are badly knotted and almost worthless. The cause, however, is plain enough; it is simply neglect.

Now in order to cultivate this tree understand

ingly, it is necessary for us to know, that it *does* best in a rich and quite moist *clayey* soil; that it does not bear heavy crops while young, but is a long-lived tree. Standard trees growing along side of my late residence, and supposed to be from thirty to forty years of age, bear good crops and bid fair to live for many years.

A neighbor of mine planted a plum orchard of about 1400 trees of this variety alone, in the fall of 1847. And certainly we know their real worth in this place, where some thousands of dollars are received annually by the inhabitants of a small district, for the fruit of this one variety only; and where one man sold about seventy barrels the past autumn, which commanded over \$5 per barrel. And let me ask whether, with all these facts, establishing its value beyond controversy, shall we attempt the *princely* operation of *rejecting* it. Very respectfully yours, Chas. Hamilton. Canterbury, Orange Co., N. Y., Jan. 1849.

[Mr. Hamilton does not overrate the Frost Gage, and those who have failed with it, have failed chiefly from having grown it on too light a soil.—Ed.]

ERRATA.—By some error of our proof reader, the writer of the excellent review of Mr. ALLEN's work on the grape, in our last number, is made to speak of himself sometimes in the singular, at others in the plural number. The error is a very obvious one, and we only beg leave to correct it by saying that wherever "we" occurs, it should read "I."

ANSWERS TO CORRESPONDENTS.

NECTARINES.—A. H. (New-York.) The Down-ton nectarine has fruited abundantly in our garden, and we estimate it more highly for ordinary culture than any other variety. The fruit does not drop off just before maturing, like most other sorts. The Elruge is the most popular sort grown in this country.

MORTAR FLOORS.—James Alves, (Henderson, Ky.) The following mode gives a good floor for basement rooms or cellars. The bottom being well drained, cover it six or eight inches deep with small stones, laid snugly and closely together. Cover them four inches deep with a coarse mortar made of gravel and newly slacked lime; this should be well beaten, and made perfectly level. As soon as it becomes quite firm, (which will take several days,) cover it an inch deep with a mortar composed of lime, sand, and fresh brick dust from a brick kiln; or, if that is not easily obtained, use wood ashes. Mix the mortar and add the brick dust or ashes (as most convenient, just before tempering each hod of mortar for laying it down. It should be made as smooth as possible with the back of a spade, followed by a trowel, and will soon become perfectly hard. About one-third in bulk of brick-dust or ashes should be used in proportion to the whole mass of mortar. A little

yellow ochre dissolved in the water used in tempering the mortar, will give it a better color.

ORANGE TREES.—*Delaware.* Your trees are suffering from bad soil. Turn them out, and repot them in a mixture of burnt sods and fine charcoal, and they will soon recover.

BITTER ROT.—*T. B., (Washington.)* A liberal dressing of wood ashes will be likely to prevent this disease in your apples. See Mr. ELLIOT's communication in this number. We also recommend a trial of gypsum.

VINE BORDERS.—*A Connecticut Subscriber.* If your subsoil is a yellow sand, always dry, you will need nothing in the bottom of your border for drainage. By all means mix the bone manure, leached ashes, charcoal screenings, chopped loamy turf, &c., through the whole mass of the border, and not put them in layers. The only substances needing to be treated in this way, are very warm manures, such as carcasses, &c., placed at the bottom so that the roots may not reach them till they are decomposed, or bones and lime rubbish, which thus serve the double purpose of food and drainage. But recent observations incline us to doubt the good effects of whole bones, and we would always use them either ground or dissolved. Neither ground bones nor leached ashes will do any harm to the roots of your vines when intermixed with the soil. All the above substances are excellent materials for a vine border, and a sprinkling of gypsum, may be added with advantage. Chopped sods are much better than loam if you have not much manure at hand. The horse manure may be used liberally with great advantage, and should be mixed through the whole mass.

CAMELIAS.—*W. E. J., (Southbridge, Mass.)* The Camellia may be kept in a cellar free from frost, provided there is plenty of light, and the plants are watered but seldom—so as to keep them dormant. The old *Double White*, *Double variegated*, and *Press' Eclipse*, will best answer your purpose. See Mr. FEAST's remarks, present number.

OSAGE ORANGE.—*John Foster, (Dayton, O.)* The young plants often suffer the first one or two winters from the seed—the young wood being sappy. But the plants will be perfectly hardy with you when the hedge is grown. Of course, all plants stand the winter better growing on high than on low ground. It is a good plan to turn a furrow in the autumn against the young hedge, and remove it in the spring. It serves as a protection.

STRAWBERRIES.—*A Young Horticulturist, (Middleboro', Mass.)* A swamp well drained, and coated a foot deep as you propose, would be an excellent soil for strawberries and raspberries;—much better than a gravelly upland—for unless the latter soil is *deep*, the crops and fruit will be small. If a gravelly soil, is well *trenched* and afterwards enriched, it will answer perfectly.

COMPOST.—*Middleboro'.* Swamp muck, reduced with leached ashes, makes the better compost for sandy soils; and muck reduced with lime for heavy soil.

IMPROVING FOREST GROUPS.—*Yeoman, (Hartford, Ct.)* You may greatly improve the appearance of the meagre looking forest trees in your approach, by loosening the soil around them with a pick, and giving them a heavy top-dressing of guano, ashes, and gypsum, mixed together. Head back at once the tops of any of the 'young saplings that are unsightly—this will make them put out new and more bushy heads. Plant the following rapid growing trees at the points marked C. D. E. F. on your sketch—viz: Cork-bark Elm, Silver Maple and European Sycamore;—the Paulownia would not harmonize with the present groups. Prepare the holes for these trees thoroughly, by digging them four feet across and 18 inches deep, and manuring them well.

GIRDLED TREES.—*Y.* If your trees are not quite girdled, and you cover the wound with the shellac solution described in our last vol., p. 533, they will recover. If wholly girdled, your only chance of saving them is to *graft* a ring of bark from another branch of the same kind of tree, on the girdled spot. This may be done when the sap flows freely, and we have known even a narrow strip of bark, say an inch wide, inserted in this way, which saved the whole tree. Of course, the whole wound must be carefully covered from the air by grafting wax or clay.

HOT-BED LIGHTS.—*New Bedford Sub.* The best substitute for glass is strong cotton, coated as described by a correspondent in last vol., p. 354. It is cheap, but not very durable, unless carefully used.

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. Correspondents who are *subscribers*, will hereafter find replies to any questions within the scope of this journal, in this department, (unless otherwise requested;) and all queries, put in a *brief shape*, and sent to us *free of postage*, shall receive attention. They should be sent, if possible, in the early part of the month. ED.

MASSACHUSETTS HORTICULTURAL SOCIETY.

BUSINESS MEETINGS.

Jan. 20, 1849.—President SAMUEL WALKER, in the chair. D. A. Simmons, Alvah Kittridge, of Roxbury, and Edward E. Rice, of Dorchester, were proposed for subscription membership by the President.

The Committee on Finance made their Annual Report, which was accepted.

The President recommended that the Committee of Arrangements be requested to consider the expediency of the Society's holding two Shows during the year, viz : an Exhibition of Roses and other Flowers, in June, and the customary Annual Exhibition in September; and that they report to the Society at the next meeting.

The President also recommended that a Committee of—persons be appointed to ascertain and report a Catalogue of the varieties of fruits which have been exhibited at the rooms of this Society, since its organization up to the present time, together with the name of the persons who exhibited the same,—and it was voted to refer the subject to the Committee on Fruits.

Feb. 3.—President SAMUEL WALKER in the chair. Mr. C. M. Hovey, chosen Secretary pro tem.

Calvin Young, of Jamaica Plains, was proposed for membership by the President.

Mr. M. P. Wilder, as Chairman of the Committee, appointed to settle with Mt. Auburn Cemetery, reported that they had received, per hand of Geo. Wm. Bond, Esq., Treasurer of said association, the sum of twenty-five hundred and eighty-two dollars and forty-three cents, being the Society's proportion of the net earnings for the year 1848.

Mr. Joseph Breck, Chairman of the Committee of Arrange-

ments, reported that the Committee deem it expedient to hold the Annual Exhibition of the Society, on the 18th, 19th, 20th and 21st days of September next; and recommend that hereafter there be held a Show of Flowers, &c. in June, the days to be designated by the Committee on Flowers.

On motion of Mr. D. Haggerston, it was voted that the Committee on the Library, be authorized to purchase one or more copies of J. F. Allen's Treatise on the Grape, for the use of the Society.

L. B. Comens and Laban T. Beecher, of Roxbury, were elected subscription members of the Society.

Feb. 10.—President SAMUEL WALKER in the chair. Mr. C. M. Hovey, appointed Secretary pro tem.

Azell C. Bowditch, of Roxbury, was proposed for Life Membership, by Azell Bowditch.

On motion of Mr. C. M. Hovey, it was voted that the sum of \$50 be awarded at the Exhibition to be held in June next, and that the Committee on Flowers be requested to report a list of such premiums.

Feb. 17.—President SAMUEL WALKER in the chair. Wm. Underwood, of Boston, was proposed for membership by the President.

The Committee of Publication reported that they recommended the publication, by the Society, of another number of its "Transactions," to complete the first volume.

A letter was received from the Antiquarian Society, soliciting copies of its Transactions; and it was voted that the Corresponding Secretary be requested to furnish the same.

Edward E. Rice, of Dorchester, and David A. Simmons, of Roxbury, were admitted as subscription members.

E. C. R. WALKER, *Rec. Sec'y.*

PENNSYLVANIA HORTICULTURAL SOCIETY.

The stated meeting of this Society for February, was held on Tuesday evening, the 20th, in the Chinese Saloon. The President in the chair. A beautiful display of plants, designs, &c., was presented on the occasion, much to the gratification of the visitors in attendance. A fine collection of plants were shown by Robert Buist, not in competition; among which were seen the following plants of recent introduction: *Torenia asiatica*, an interesting plant of some note, and for the first time exhibited; *Porphyr coma lanceolata*, of peculiar form; a Seedling *Cineraria* var *Scottii*, of much beauty, with Heaths, *Cinerarias*, &c. The President's gardener exhibited a fine specimen of *Camellia* var *Wilderii*, Epiphytes, *Cypripedium*, and other green and hot-house plants; also cut flowers of choice *Camellias*. James Dundas' gardener, large and handsome Azaleas. Peter Raabe, a stand in which was planted choice Hyacinths, and a pot of double Chinese Primroses. Designs of handsome form and of the finest flowers, were shown by James Bisset, gardener to James Dundas; Ben Daniels, gardener to Caleb Cope, and Peter Raabe.

Fruit.—From the President's green-house, a dish of Hovey's and Keene's Strawberries, very tempting. St. Germain and Beurre Easter Pears, by Thos. Hancock. Four varieties of Apples, by John Perkins, and specimens of the "American Farmer" apple, by Col. Carp.

Among the vegetables were noticed Cucumbers, new Potatoes, Mushrooms, Seakale, Kidney Beans, Lettuce, &c., from the forcing-house of the President, and an extensive variety from Anthony Felten.

Premiums were awarded as follows:—By the Committee on Plants and Flowers—*Camellias*: for the best regularly shaped six named varieties, in pots, to David Scott, gardener to F. Lennig. Cut *Camellias*, for the best regularly shaped six named varieties—for the 2d best ditto—for the best of other forms—for the best six named *Premula sinensis*—for

the best three named specimens hot-house plants—for the best collection of plants in pots—for the second best Designs, and second basket of cut Flowers, all to Ben Daniels, gardener to Caleb Cope. For the best green-house plants, three named specimens, and the best design formed of cut Flowers, to James Bisset, gardener to James Dundas. For the second best green-house plants, three named, to Daniel Scott, gardener to Frederick Lennig. For the best basket of cut Flowers, to Maurice Finn, gardener to John Lambert.

The Committee noticed with pleasure, three new plants, from R. Buist—*Torenia asiatica*, *Porphyr coma lanceolata*, and *Cineraria Scottii*, and awarded a special premium of three dollars for the same. The Committee awarded a special premium of two dollars for a beautiful design of cut Flowers, and one dollar for a stand of Hyacinths, to Peter Raabe.

By the Committee on Fruit. For the best six specimens of Pears (St. Germain,) and the second best (Easter Beurre,) to Thos. Hancock. For the best Apples, 1 dozen, (Newtown Pippins,) and for the second best do. (Hollow Core,) to John Perkins. The Committee notice a jar of fine Strawberries from Buenos Ayres, (uncultivated) presented by Dr. W. D. Brinckle, and a basket of very beautiful Strawberries from the green-house of Caleb Cope.

By the Committee on Vegetables. For the best display, and the second best display, by market gardeners, to Anthony Felten. For the best and for the second best display of ditto, by amateurs, to B. Daniels, gardener to Caleb Cope. For the best Mushrooms, one dozen, to the same.

A communication from the Cincinnati Horticultural Society, was submitted requesting the influence (if the Society concur) for the adoption of such modification of the Post Office laws, as will enable those persons engaged in Horticultural pursuits, to transmit by mail, seeds, grafts, &c., at a rate of postage not exceeding that of newspapers.

THOMAS P. JAMES, *Rec. Sec'y.*



Horticulturist

AND

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WHAT a very little fact sometimes betrays the national character; and what an odd thing this national character is. Look at a Frenchman. He eats, talks, lives in public. He is only happy when he has spectators. In town, on the boulevards, in the *caf  *, at places of public amusement, he is all enjoyment. But in the country—ah, there he never goes willingly; or else, he only goes to sentimentalize, or to entertain his town friends. Even the natural born country people seem to find nature and solitude *ennuyant*, and so collect in little villages to keep each other in spirits! The Frenchman eats and sleeps almost anywhere; but he is never “at home but when he is abroad.”

Look, on the other hand, at John Bull. He only lives what he feels to be a rational life, when he lives in the country. His country place is to him a little Juan Fernandez island; it contains his own family, his own castle, everything that belongs to him. He hates the smoke of town; he takes root in the soil. His horses, his dogs, his trees, are not separate existences; they are parts of himself. He is social with a reservation. Nature is nearer akin to him than strange men. His dogs are truly attached to him; he doubts if his fellows

are. People often play the hypocrite; but the trees in his park never deceive him. Home is to him the next best place to heaven.

And only a little narrow strait of water divides these two nations!

Shall *we* ever have a distinct national character? Will a country, which is settled by every people of the old world,—a dozen nations, all as distinct as the French and the English,—ever crystallize into a symmetrical form—something distinct and homogeneous? And what will that national character be?

Certainly; no one who looks at our comparative isolation—at the broad ocean that separates us from such external influences—at the mighty internal forces of new government and new circumstances, which continually act upon us,—and, above all, at the mighty vital force of the Yankee constitution, which every year swallows hundreds of thousands of foreigners, and *digests* them all; no one can look reflectingly on all this, and not see that there is a national type, which will prevail over all the complexity, which various origin, foreign manners, and different religions bring to our shores.

The English are, perhaps, the most dis-

tinct of civilized nations, in their nationality. But they had almost as mixed an origin as ourselves,—Anglo-Saxon, Celts, Roman, Danish, Norman; all these apparently discordant elements, were fused so successfully into a great and united people.

That a hundred years hence will find us quite as distinct and quite as developed, in our national character, we cannot doubt. What that character will be, in all its phases, no one at present can precisely say; but that the French and the English elements will largely influence it in its growth, and yet, that in morals, in feeling, and in heart, we shall be entirely distinct from either of those nations, is as clear to us as a summer noon.

We are not going into a profound philosophical dissertation on the political or the social side of national character. We want to touch very slightly on a curious little point that interests us; one that political philosophers would think quite beneath them; one that moralists would not trouble themselves about; and one that we are very much afraid nobody else will think worth notice at all; and therefore we shall set about it directly.

What is the reason American ladies dont love to work in their gardens?

It is of no use whatever, that some fifty or a hundred of our fair readers say, "we do." We have carefully studied the matter, until it has become a fact past all contradiction. They may love to "potter" a little. Three or four times in the spring they take a fancy to examine the colour of the soil a few inches below the surface; they sow some China Asters, and plant a few Dahlias, and it is all over. Love flowers, with all their hearts, they certainly do. Few things are more enchanting to them than a fine garden; and *bouquets on their*

centre tables are positive necessities, with every lady, from Maine to the Rio Grande.

Now, we certainly have all the *love of nature* of our English forefathers. We love the country; and a large part of the millions, earned every year by our enterprise, is spent in creating and embellishing country homes. But, on the contrary, our wives and daughters only love gardens as the French love them—for the results. They love to walk through them; they enjoy the beauty and perfume of their products, but only as amateurs. They know no more of that intense enjoyment of her who plans, creates, and daily watches the growth of those gardens or flowers,—no more of that absolute, living enjoyment, which the English have in out-of-door pursuits, than a mere amateur, who goes through a fine gallery of pictures, knows of the intensified emotions which the painters of those pictures experienced in their souls, when they gazed on the gradual growth and perfected splendor of their finest master-pieces.

As it is plain, from our love of the country, that we are not French at heart, this manifestation that we complain of, must come from our natural tendency to copy the social manners of the most polished nation in the world. And it is indeed quite wonderful how, being scarcely in the least affected by the *morale*, we still borrow almost instinctively, and entirely without being aware of it, so much from *la Belle France*. That our dress, mode of life, and intercourse, is largely tinged with French taste, every traveller notices. But it goes farther. Even the plans of our houses become more and more decidedly French. We have had occasion, lately, to make considerable explorations in the domestic architecture of France and England, and we have noticed some striking

national peculiarities. One of these relates to the connection of the principal apartments. In a French house, the beau ideal is to have everything *en-suite*; all the rooms open into each other; or, at least, as many of the largest as will produce a fine effect. In an English house, every room is complete in itself. It may be very large, and very grand, but it is all the worse for being connected with any other room; for that destroys the privacy which an Englishman so much loves.

Does any one, familiar with the progress of building in the United States for the last ten years, desire to be told which mode we have followed? And yet, there are very few who are aware that our love of folding doors, and suites of apartments, is essentially French.

Now our national taste in gardening and out door employments, is just in the process of formation. Honestly and ardently believing that the loveliest and best women in the world are those of our own country, we cannot think of their losing so much of their own and nature's bloom, as only to enjoy their gardens by the *results*, like the French, rather than through the *development*, like the English. We would gladly show them how much they lose. We would convince them, that only to pluck the full blown flower, is like a first introduction to it, compared with the life-long friendship of its mistress, who has nursed it from its first two leaves; and that the real zest of our enjoyment of nature, even in a garden, lies in our looking at her, not like a spectator who admires, but like a dear and intimate friend, to whom, after long intimacy, she reveals sweets wholly hidden from those who only come to her in full dress, and in the attitude of formal visitors.

If any one wishes to know how com-

pletely and intensely English women enter into the spirit of gardening, he has only to watch the wife of the most humble artisan who settles in any of our cities. She not only has a pot of flowers — her back yard is a perfect curiosity-shop of botanical rarities. She is never done with training, and watering, and caring for them. And truly, they reward her well; for who ever saw such large Geraniums, such fresh Daisies, such ruddy Roses! Comparing them with the neglected and weak specimens in the garden of her neighbor, one might be tempted to believe that they had been magnetised by the charm of personal fondness of their mistress, into a life and beauty not common to other plants.

Mr. COLMAN, in his European Tour, seems to have been struck by this trait, and gave so capital a portrait of rural accomplishments in a lady of rank he had the good fortune to meet, that we cannot resist the temptation of turning the picture to the light once more:

—"I had no sooner, then, entered the house, where my visit had been expected, than I was met with an unaffected cordiality, which at once made me at home. In the midst of gilded halls, and hosts of liveried servants, of dazzling lamps and glittering mirrors, redoubling the highest triumphs of art and of taste; in the midst of books, and statues, and pictures, and all the elegancies and refinements of luxury; in the midst of titles, and dignitaries, and ranks allied to regal grandeur,—there was one object which transcended, and eclipsed them all, and showed how much the nobility of character surpassed the nobility of rank, the beauty of refined and simple manners all the adornments of art, the scintillations of the soul, beaming from the eyes, the purest gems that ever glittered in a princely diadem. In person, in education and improvement, in quickness of perception, in facility and elegance of expression, in accomplishments and taste, in a frankness and gentleness of manner, tempered by a modesty which courted confidence and inspired respect, and in a high moral tone

and sentiment, which, like a bright halo, seemed to encircle the whole person,—I confess the fictions of poetry became substantial, and the *beau idéal* of my youthful imagination was realized.

“In the morning I first met her at prayers; for, to the honor of England, there is scarcely a family, among the hundreds whose hospitality I have shared, where the duties of the day are not preceded by family worship; and the master and the servant, the parent and the child, the teacher and the taught, the friend and the stranger, come together to recognise and strengthen the sense of their common equality, in the presence of their common Father, and to acknowledge their equal dependence upon his care and mercy. She was then kind enough to tell me, after her morning’s arrangements, she claimed me for the day. She first showed me her children, whom, like the Roman mother, she deemed her brightest jewels, and arranged their studies and occupations for the day. She then took me two or three miles on foot, to visit a sick neighbor; and, while performing this act of kindness, left me to visit some of the cottages upon the estate, whose inmates I found loud in the praises of her kindness and benefactions. Our next excursion was to see some of the finest, and largest, and most aged trees in the park, the size of which was truly magnificent; and I sympathised in the veneration which she expressed for them, which was like that with which one recalls the illustrious memory of a remote progenitor. Our next visit was to the green-houses and gardens; and she explained to me the mode adopted there, of managing the most delicate plants, and of cultivating, in the most economical and successful manner, the fruits of a warmer region. From the garden we proceeded to the cultivated fields; and she informed me of the system of husbandry pursued on the estate, the rotation of crops, the management and application of manures, the amount of seed sown, the ordinary yield, and the appropriation of the produce, with a perspicuous detail of the expenses and results. She then undertook to show me the yards and offices, the byres, the feeding stalls, the plans for saving, increasing and managing the manure; the cattle for feed-

ing, for breeding, the milking stock, the piggery, the poultry-yard, the stables, the harness-rooms, the implement-rooms, the dairy. She explained to me the process of making the different kinds of cheese, and the general management of the milk, and the mode of feeding the stock; and then, conducting me into the bailiff’s house, she exhibited to me the Farm Journal, and the whole systematic mode of keeping the accounts and making the returns, with which she seemed as familiar as if they were the accounts of her own wardrobe. This did not finish our grand tour; for, on my return, she admitted me into her boudoir, and showed me the secrets of her own admirable housewifery, in the exact accounts which she kept of everything connected with the dairy, the market, the table, and the drawing-room, and the servants’ hall. All this was done with a simplicity and a frankness, which showed an absence of all consciousness of any extraordinary merit in her own department, and which evidently sprang solely from a kind desire to gratify a curiosity on my part, which, I hope, under such circumstances, was not unreasonable.

“A short hour after this brought us into another relation; for the dinner bell summoned us, and this same lady was found presiding over a brilliant circle of the highest rank and fashion, with an ease, elegance, wit, intelligence, and good humor, with a kind attention to every one’s wants, and an unaffected concern for every one’s comfort, which would lead one to suppose that this was her only and her peculiar sphere. Now I will not say how many mud-puddles we had waded through, and how many manure heaps we had crossed, and what places we had explored, and how every farming topic was discussed; but I will say that she pursued her object without any of that fastidiousness and affected delicacy, which pass with some persons for refinement, but which, in many cases, indicate a weak, if not a corrupt mind. * *

“Now I do not say that the lady to whom I have referred was herself the manager of the farm; that rested entirely with her husband; but I have intended simply to show how gratifying to him must have been the lively interest and sympathy which she

took in concerns which necessarily so much engaged his time and attention ; and how the country would be divested of that dullness and *ennui*, so often complained of as inseparable from it, when a cordial and practical interest is taken in the concerns which belong to rural life. I meant also to show—and this and many other examples, which have come under my observation, emphatically do show—that an interest in, and familiarity with, even the most humble occupations of agricultural life, are not inconsistent with the highest refinements of taste, the most improved cultivation of the mind, and elegance, and dignity of manners, unsurpassed in the highest circles of society.”

This picture is thoroughly English ; and who do our readers suppose this lady was ? Mr. COLMAN puts his fingers on his lips, and declares, that however much he may be questioned by his fair readers at home, he will make no disclosures. But other people recognise the portrait ; and we understand it is that of the DUCHESS OF PORTLAND.

Now, as a contrast to this, here is a little fragment—a mere bit—but enough to show the French feeling about country life. It is from one of MADAME DE SEVIGNE’s charming letters ; and, fond of society, as she was, she certainly had as much of love of the country as belongs to her class and sex on her side of the channel. It is part of a letter, written from her country home. She is writing to her daughter, and speaking of an expected visit from one of her friends :

“It follows that, after I have been to see her, she will come to see me, when, of course, I shall wish her to find my garden in good order ; my walks in good order—those fine walks, of which you are so fond. Attend also, if you please, to a little suggestion *en passant*. You are aware that hay-making is going forward. Well, I have no hay-makers. I send into the neighboring fields to press them into my service ; there are none to be found ; and so all my own people are summoned to make hay instead. But do you know what hay-making is ? I

will tell you. *Hay-making is the prettiest thing in the world. You play at turning the grass over in a meadow ; and as soon as you know that, you know how to make hay.*”

Is it not capital ? We italicise her description of hay-making, it is so *Française*, and so totally unlike the account that the DUCHESS would have given Mr. COLMAN. Her garden, too ; she wanted to have it *put in order before her friend arrived*. She would have shown it, not as an English woman would have done, to excite an interest in its rare and beautiful plants, and the perfection to which they had grown, under her care, but that it might give her friend a pleasant promenade.

Now we have not the least desire, that American wives and daughters should have anything to do with the *rough toil* of the farm or the garden, beyond their own household province. We delight in the chivalry which pervades this whole country, in regard to the female character, and which even foreigners have remarked as one of the strongest national characteristics.* But we would gladly have them seize on that happy medium, between the English passion for everything out of doors, and the French taste for nothing beyond the drawing-room. Everything which relates to the garden, the lawn, the pleasure-grounds, should claim their immediate interest. And this, not merely to walk out occasionally and enjoy it, but to know it by heart ; to do it, or see it all done ; to know the his-

* M. CHEVALIER, one of the most intelligent of recent French travellers, says, in his work on this country—“Not only does the American mechanic and farmer relieve, as much as possible, his wife from all severe labor, all disagreeable employments, but there is also, in relation to them, and to women in general, a disposition to oblige, that is unknown among us, even in men who pique themselves upon cultivation of mind and literary education.” * * * *

“We buy our wives with our fortunes, or we sell ourselves to them for their dowries. The American chooses her, or rather he offers himself to her for her beauty, her intelligence, and the qualities of her heart ; it is the only dowry which he seeks. Thus, while we make of that which is most sacred a matter of business, these traders affect a delicacy, and an elevation of sentiment, which would have done honor to the most perfect models of chivalry.”

tory of any plant, shrub, or tree, from the time it was so small as to be invisible to all but their eyes, to the time when every passer by stops to admire and enjoy it; to live, in short, not only the in-door but the out-of-door life of a true woman in the country. Every lady may not be "born to love pigs and chickens," (though that is a good thing to be born to;) but, depend upon it, she has been cut off by her mother nature with less than a shilling's patrimony, if she does not love trees, flowers, gardens, and nature, as if they were all part of herself.

We half suspect, if the truth must be told, that there is a little affectation or coquetry among some of our fair readers, in this want of hearty interest in rural occupation. We have noticed that it is precisely those who have the smallest gardens, and, therefore, who ought most naturally to wish to take the greatest interest in their culture themselves,—it is precisely those who depend entirely upon their gardener. They rest with such entire faith on the chivalry of our sex, that they gladly permit everything to be done for them, and thus lose the greatest charm which their garden could give—that of a delightful personal intimacy.

Almost all the really enthusiastic and energetic lady gardeners, that we have the pleasure of knowing, belong to the wealthiest class in this country. We have a neighbor on the Hudson, for instance, whose pleasure-grounds cover many acres, whose flower-garden is a miracle of beauty, and who keeps six gardeners at work all the season. But there is never a tree transplanted that she does not see its roots carefully handled; not a walk laid out that she does not mark its curves; not a parterre arranged that she does not direct its colours and grouping, and even assist in planting it. No matter what guests enjoy her hos-

pitality, several hours every day are thus spent in out-of-door employment; and from the zeal and enthusiasm with which she always talks of everything relating to her country life, we do not doubt that she is far more rationally happy now, than when she received the homage of a circle of admirers at one of the most brilliant of foreign courts.

On the table before us, lies a letter from a lady of fortune in Philadelphia, whose sincere and hearty enthusiasm in country life always delights us. She is one of those beings who animate everything she touches, and would make a heart beat in a granite rock, if it had not the stubbornness of all "facts before the flood." She is in a dilemma now about the precise uses of lime, (which has staggered many an old cultivator, by the way,) and tells the story of her doubts with an earnest directness and eloquence that one seeks for in vain in the essays of our male chemico-horticultural correspondents. We are quite sure that there will be a meaning in every fruit and flower which this lady plucks from the garden, of which our fair friends, who are the disciples of the SEVIGNE school, have not the feeblest conception.

There are also, we fear, those who fancy that there is something rustic, unfeminine and unrefined, about an interest in country out-of-door matters. Would we could present to them a picture which rises in our memory, at this moment, as the finest of all possible denials to such a theory. In the midst of the richest agricultural region of the northern states, lives a lady—a young, unmarried lady; mistress of herself; of some thousands of acres of the finest lands; and a mansion which is almost the *ideal* of taste and refinement. Very well. Does this lady sit in her drawing-room all day, to receive her visitors? By no

means. You will find her, in the morning, either on horseback or driving a light carriage with a pair of spirited horses. She explores every corner of the estate; she visits her tenants, examines the crops, projects improvements, directs repairs, and is thoroughly mistress of her whole demesne. Her mansion opens into the most exquisite garden of flowers and fruits, every one of which she knows by heart. And yet this lady, so energetic and spirited in her enjoyment and management in out-of-door matters, is, in the drawing-room, the most gentle, the most retiring, the most refined of her sex.

A word or two more, and upon what ought to be the most important argument of all. EXERCISE, FRESH AIR, HEALTH,—are they not almost synonymous? The exquisite bloom on the cheeks of American girls, fades, in the matron, much sooner here than in England,—not alone because of the softness of the English climate, as many suppose. It is because exercise, so necessary to the maintenance of health, is so little a

matter of habit and education here, and so largely insisted upon in England; and it is because exercise, when taken here at all, is taken too often as a matter of duty; that it is then only a lifeless duty, and has no soul in it; while the English woman, who takes a living interest in her rural employments, inhales new life in every day's occupation, and plants perpetual roses in her cheeks, by the mere act of planting them in her garden.

"But, Mr. DOWNING, think of the hot sun in this country, and our complexions!"

Yes, yes, we know it. But get up an hour earlier, fair reader; put on your broadest sun-bonnet, and your stoutest pair of gloves, and try the problem of health, enjoyment and beauty, before the sun gets too ardent. A great deal may be done in this way; and after a while, if your heart is in the right place for ruralities, you will find the occupation so fascinating that you will gradually find yourself able to enjoy keenly what was at first only a very irksome sort of duty.

DESCRIPTIVE NOTICES OF FIFTY RARE OR NEW PEARS.

BY ROBERT MANNING, SALEM, MASS.

[WE have much pleasure in publishing the following notes, and in calling the attention of pomologists and amateurs to them. Mr. MANNING's reputation as a pomologist is well deserved; for he unites enthusiastic zeal, excellent judgment, and sterling honesty,—qualities so rarely combined in devotees to any art; and he has the advantage of the experience of two generations. We have either tested in our own, or carefully noted in other gardens, many of the sorts he notices, and our opinion accords almost entirely with those expressed by him. ED.]

1. *Bergamotte Cadett*.—This pear has been cultivated for some years as *Beurré Beauchamps*; but that name not having been firmly established, it was thought best to substitute for it the one at the head of this notice, which is that adopted by the London Horticultural Society. I wish now to recommend a more extensive trial of it, as I do not think it has been as much cultivated as it deserves to be. It is rather under middle size; form roundish obovate; flavor very fine, sometimes excelling the *Winter Nelis*. Ripe the early part of winter. I do not notice the diversity in

the ripening of this sort, mentioned in the London Catalogue.

2. *Beurré Kenrick*.—I have now fruited this pear several years, and have had many specimens, some of which were very fine of their kind; but I do not think it entitled to be recommended for general cultivation. It ripens the first part of September.

3. *Beurré d'Angleterre*.—Very productive, but soon decays at the core.

4. *Beurré Adam*.—A new pear, not yet fully proved. It appears to resemble the *Bishop's Thumb*.

5. *Beurré of Bolwiller*.—A variety received from Dr. VAN MONS, which may fairly claim a place in the rejected list.

6. *Beurré Delbecq*.—The same remarks as were made on the last will apply to this.

Beurré Witzhumb proves identical with *Beurré Delbecq*.

7. *Bergamotte Parthenay*.—A winter fruit, lately imported from France; worthless as a dessert pear, and though good to cook, but being deficient in size, it is hardly worth cultivation for that purpose, while we have plenty of larger ones.

8. *Ambrosia* does not come up to the reputation given it in the books. It is not a melting, but a breaking pear, and does not ripen here before the first of September. It is commonly said to decay very soon; but I think it keeps full as long as most pears of its season. Tree of upright growth, making strong shoots, of a very dark, purplish colour, thickly marked with white dots.

9. *Alpha*.—To my taste, this is one of the finest pears. It is sweet, and exceedingly fine grained, melting and juicy. The tree is a great bearer; and although the fruit does not hold on very strongly, those which blow off open so as to be full as good, or even better than the others. And I may here remark, that many of the

autumn pears are as much improved as the summer fruit, by being taken from the tree before fully ripe.

10. *Aston Town*.—A good grower, making smooth, vigorous shoots, of a light gray colour. Fruit rather small, with a long stem, and ripening the first of September, but so much inferior to many others of the same season as to be hardly worth growing.

11. *Beurré Van Marum*.—Hardly comes up to medium size, but is of very fine flavor. It appears to be allied to the *Urbaniste*. Ripe the first half of October. It is easily known, by the peculiar insertion of the stem in a small regular cavity. Stem long, slender and curved, with a little swelling at the bottom. Bears young and well, so that the shoots are soon thickly covered with fruit spurs. Leaves long, narrow, flat, and pointed at both ends.

12. *Henkel*.—Received from Dr. VAN MONS. It resembles the *B. Van Marum* in its early and abundant bearing, in shape and colour, in the length and curvature of the stem, and in its likeness to the *Urbaniste*; but differs in being larger, a month earlier, and the stem being stouter. It ripens the first part of September, and is among the best of its season.

13. *Burgomaster*.—The true variety is very distinct from the *Vicar of Winkfield*. Of medium size, long pyriform; skin pale, yellowish green, sprinkled with russet; flavor very poor. The wood cankers worse than that of any other variety, without exception. Altogether, one of the most worthless.

14. *Brandes St. Germain*.—I think this must have been among the first originated by Dr. VAN MONS; as it is stated in *Prince's Pomological Manual*, published in 1831, to have been raised seventeen or eighteen years previously. It was comprised in the first lot of scions received from VAN MONS;

but its great merits have remained unrecognized until quite lately. For several years past, it has proved one of the finest winter pears. Form oblong, pointed at the stem, which is always planted obliquely on one side; skin brownish yellow, often with much smooth russet; flesh rich and juicy, with a vinous flavor, resembling the St. Germain or Dix. Tree productive, and a tolerable grower. Foliage small and narrow, like the old St. Germain. It succeeds finely on the quince. Altogether, I think it a most desirable variety, especially when its season is taken into consideration; as we are deficient in good winter pears.

15. *Columbia*.—With me, this has proved rather unproductive, and very apt to blow off; and though large, fair and handsome, I cannot say much in praise of its flavor.

16. *Capucin*, (of VAN MONS).—A very high flavored, juicy pear; skin of a dark brownish red; surface knobby.

17. *Caen du France*.—A rather singular looking, but handsome pear: form obovate, sometimes lengthened, and pointed at the stem; skin russeted, and thickly sprinkled with raised dots of darker russet, and often with a fine red cheek; medium size; flesh very fine, juicy and sweet; flavor resembling the Winter Nelis. Ripe in December and January. From Dr. VAN MONS.

18. *Coter*.—Another from Dr. VAN MONS, and a very fine one, among the first of those received from him; medium size; form regular obovate; skin pale green; flesh very fine grained, tender and melting, filled with a refreshing juice. Ripe in November; at which time there is none superior to it. The tree makes a round, compact head; young wood, short jointed, light yellow.

19. *Clara*.—Unworthy of cultivation.

20. *Cuvelier*.—Unworthy of cultivation.

21. *Doyenné Boussock*.—One of the most valuable additions to our list of fine new pears. It is a White Doyenné, on a much larger scale. Tree very vigorous; foliage large, thick and glossy. Last of September and first of October.

22. *Dundas*.—Exceedingly handsome, and pretty good; apt to blow down.

The *Parmentier* proves to be the same as Dundas.

23. *Easter Bergamot*.—I do not think worth growing, either for dessert or kitchen use.

24. *Foster's St. Michael*.—Wood cankers badly, and the fruit is inferior to many others of its season,—the first part of September.

25. *Gilgil*.—I have discontinued cultivating, on account of its unproductive-ness.

26. *Gendeseim*.—Medium size, obovate, pale, greenish yellow, sprinkled with russet, melting, juicy, and of good flavor. A very strong grower on the quince. October.

27. *Flemish Bon Chretien*.—One of the best pears for cooking in the winter.

28. *Green Sugar*.—Unworthy of cultivation.

29. *Doyenné d'Hiver*.—This pear was a favorite with the late S. G. PERKINS, Esq., from whom it was received here. It is large, fair and productive; though not high flavored, it is sweet and juicy. I think it a desirable sort, particularly for market. It is the same as "Coffin's Virgalieu," which was received from France with the name lost, and thus designated from the name of the importer, and its resemblance to the White Doyenné or Virgalieu. Ripe early in winter.

30. *Wilbur*.—Medium size, obovate; skin of a dull yellowish colour, sometimes almost covered with russet; flavor often de-

cidedly first rate. A native pear, productive and hardy. Ripe in September.

31. *Limon*.—For one who loves a pear, full of rich, *sprightly* juice, there is nothing superior to the Limon, among the summer fruits.

32. *Elizabeth*, (*Manning's*).—This very fine summer pear is one of the best growers on the quince. It bears young and well.

33. *Duchess of Orleans*.—One of the most perfect of pears. Tree vigorous,—making light yellow shoots, an early and abundant bearer; fruit very handsome, and of delicious flavor. It fruited here in 1845, for the first time in this country. Some of the specimens then produced were the finest pears I have ever tasted. Grows well on the quince. Ripe in October.

34. *Tyson*.—A very rich, sweet, summer pear, of medium size, and pyriform figure. The *Tyson* and *Rostiezer* are among the few pears which may be said to approach the Seckel, in flavor. The growth of the tree is healthy and vigorous,—making a handsome top, resembling the Seckel, but taller. Ripe the last of August. A native of Philadelphia.

35. *Las Cañas*.—Received from M. EMI-LIEN DE WAEL, of Belgium. It proves to be a very fine pear, of medium size, pyriform; skin pale yellow, often partly covered with thin russet; seeds very black; flesh juicy, very sweet and rich. Tree upright and vigorous, bears young and well. October.

36. *Paradise d'Automne*.—Quite distinct from the Beurré Bosc, though resembling it in general appearance. A very striking difference is observable in the flowers. The texture and flavor of the flesh are even superior to that magnificent pear. I consider it the most valuable addition to the list of fine new pears which has ever been introduced at the Pomological Gar-

den. The growth of the tree is more vigorous than any other pear whatever. October.

37. *Citron des Carmes Panache*, or *Striped Madeleine*.—The difference between the fruit of this, and the common Madeleine, consists in the skin of the former being striped with light yellow, and the flesh being a little sweeter; wood short jointed, striped with dull red and yellow. Not being as vigorous as the common Madeleine, it is less liable to the blight. Of two trees, standing about three rods apart, the striped variety has never been in the least affected, though much younger than the common kind, which was badly injured. Both varieties ripen together.

38. *Doyenné d'Été*.—A nice early pear, and very handsome; rather under medium size; form obovate; skin yellow in the shade, bright red next the sun; flesh juicy, and of pleasant flavor. Ripens the last of July, with the Madeleine, and is full as good. Bears very young; trees of two or three years from the bud are frequently covered with fruit buds, making it quite difficult to get any growth on them.

39. *Jean de Witte*.—A new winter pear, not unlike the Winter Nelis in size and flavor, and I think fully equal to it; form obovate, a little flattened; skin pale yellow. "No. 1482, of Van Mons," which I have before described and recommended, proves identical with *Jean de Witte*; as also, Nos. 1082 and 1602. The habit of the tree is very similar to the Seckel, with short jointed shoots and compact head.

40. *Plombgastel*.—This has fruited on scions received from J. C. LEE, Esq., who imported it from France; medium size, dull, greenish yellow and russet, in flavor about as good as the Bartlett. The tree makes very stout shoots, and grows well on the quince. September.

41. *Calebasse Monstreuse*.—A large obo-

vate pear, tapering both to the eye and stem, very productive, and excellent for cooking. Winter. Its shape not being at all like that of a calabash, has created some suspicion that it may be incorrect. It was received from M. DE WÆEL.

42. *Fantasie Van Mons*.—Worthless.

43. *Bruno de Bosco*.—Worthless.

44. *Hampden's Bergamot*.—Often very large and handsome; skin smooth and yellow. I have tasted specimens which I thought as good as the Bartlett. First half of September.

45. *Citron of Bohemia*.—I think this has been overrated. It is a breaking pear, ripe the first part of September, and is certainly inferior to others of that season.

46. *Marulis*.—A Belgian fruit; a strong grower, very productive, high flavored, and high coloured, but rather small and dry. August and September.

47. *Johannot*.—Exceedingly rich; in flavor and appearance resembling the Brown Beurré, from which it was not improbably raised. I do not know of anything surpassing it in flavor. Ripe here in September.

48. *Angleterre of Noisette*.—Very distinct from the Beurré d'Angleterre. A large roundish pear, of a dark green colour, with a dark brownish red cheek. I do not consider it yet fully proved; but so far as it is, it does not appear worthy of propagation. Further trial may develop some valuable properties, either as a cooking or dessert fruit.

49. *Jalousie de Fontenay Vendee*.—Productive, and very fine flavored.

50. *St. André*.—Very delicious; wood somewhat apt to canker.

ROBERT MANNING.

Pomological Garden, Salem, March, 1849.

CHICAGO, HORTICULTURALLY.

BY J. A. WIGHT, CHICAGO, ILL.

IN estimating the advantages and disadvantages of our city,—Chicago, and its immediate vicinity, for horticultural purposes, it is necessary to put forth in the beginning a word of caution; that is, that this spot must not be compared to any other part of the western country, or supposed to furnish any index to the character of any other part; for, so far as I know, it is a complete exception to all the rest. This would not be thought strange in the eastern states, where the distance of a few miles completely changes the face of the country. Why should it here? And yet, eastern people are in the habit of talking about "the west," as though it was some ten cornered potato patch, not a whit bigger than Rhode Island; as though a description

of one part must answer for all. The west now extends from Lake Superior to the Gulf of Mexico, and sweeps on from whatever line eastward, you please, to the Pacific. Can there be any such thing as homogeneousness then? It is true, that changes in climate and surface are much less frequent in this, than in the eastern regions; but they must nevertheless occur.

Chicago and its vicinity embrace a tract of land, lying along the lake shore, from a point about twelve miles north of the city, and southward from it as many more, and about twelve miles in width; consisting, for the most part, of a flat prairie, elevated from seven to twelve feet above the waters of the lake; and rising, as you proceed westward, at the rate of one foot per mile.

Along the lake shore is a ridge of sandy land, and a similar one runs nearly parallel to it, at the distance of from seven to nine miles. So much for surface. Now for soil. This consists of a muck, about ten inches or a foot in thickness, of a texture so fine that it would seem to have undergone trituration in a mortar, resting on a bed of blue tough clay, capable of being dried in the sun to the hardness of stone. As you approach the lake shore, this stratum of clay *dips* considerably; and above it, lies a fine calcareous sand, and in places loam, mingled more or less with shells.

The lake shore affords a beautiful drainage, the influence of which is felt to the distance of three or four hundred feet, which, with the warm sand, mingled with the soil, gives vegetation an early and rapid growth in the spring. Of the second ridge, heretofore spoken, the same observation may be made. These are the exceptions. The great bulk of our soil is that first described.

You will perceive, then, that our first great want is drainage, both of surface and subsoil. That of the first is easily enough effected, though, for obvious reasons, it cannot be very rapid. That of the second has never been, so far as I am aware, attempted. In the city, a sort of compensation for it is effected by "filling up." Much of the old town of Chicago is now from three to five feet higher than it originally was, from this process. The most formidable obstacle, in the way of bottom drainage, is neither our low nor our level soil. It is nothing more nor less than its exceeding fineness; by which it is packed together, from the bottom upwards, so closely that water can no more escape from it than from a sponge. The successful and universal mingling with it of coarse materials, would alone effect all we want.

The soil is one difficulty. Another is the climate. Our situation, near the southwestern extremity of Lake Michigan, exposes us to two dangers; one is the west wind of winter; the other is the north wind of spring. The first continues from one to twenty days, though the latter number is seldom reached in succession. During their continuance, the skies wear a face as calm and clear as that of an angel, while their heart is as cold as that of a fiend. The mercury sometimes sinks at this point to 15° below zero, to 25° at Rock river, and to 30° at Galena. The fate of peaches and other delicate fruits may be imagined, from such an ordeal. To these the lake affords us no protection. Sweeping from away westward to the Rocky Mountains, overland, with no water to soften their ferocity, their bite is as remorseless as that from the fangs of fate. Our neighbors across the lake receive them subdued and tempered by sixty miles of Lake Michigan; and hence, peaches and apricots are abundant on that border, while we have none. Happily, these winds and this degree of cold are not uniformly to be expected. For five winters past their occurrence has been seldom, short, and their temper comparatively mild. I find the mercury at zero but twice in any winter; and for two out of the five, not there at all. That of 1842 and '43, gave us an almost constant succession of these winds, with the mercury ranging as first indicated. The present season corresponds to that, though a shade milder. The mercury has been 11° below zero twice, and once 14°, up to this time.

Our second difficulty, the north wind, blesses us three-fourths of the year, and blasts us the remainder. From July to March, our pleasant gales are from that direction. They temper the heats of summer, and the colds of winter. They dissi-

pate the congregated malarias and cack-odorous effluvia of the city, seething under August fires, and brace up the languishing denizens with new vigor and elasticity. But oh the spring! We may as well say we have none. We make numerous attempts at one annually; but every notch we get forward has its offset of a slip or two backward, till somehow or other it gets to be summer. These northern gales frown down on us, reeking with the breath of polar bears and icebergs, for days together, blasting our tender plants, and our hopes together. The following is not an unusual "programme of exercises," for any number of cycles each year: First, come two days of south wind,—the mercury rapidly going up to 75° and 85° Fahrenheit, calling forth the tender leaves prematurely,—the ground yet as cold as November. Then, short as the crook of your elbow, are six days of north wind,—the mercury falling to 38° and 45°. Oh, horror! Now look to your starting vegetation. But this is not all. The north wind brings a rain. The water comes in an avalanche, and the fine soil drinks, and holds it with the eagerness of a toper. Now come two days more of south wind and heat. Your poor tree stands with its feet in the ice, and its head in the fire. If it, or its ancestors, have been crossed with the northern seal, and the salamander both, it may live.

You are perhaps ready now to say, that we may as well give up all ideas of horticulture. Not so. We are managing, with all these disabilities, to get many and most of the best fruits grown, while the choicest plums known to eastern gardens, year by year, find their way into our midst. In the city, fences, buildings, and trees shield us partially from the winds. "Hilling up," gives us a dry, warm soil; and an abundance of manures, such as all cities fur-

nish, with the sand of the lake shore, gives a rich one. Farther out, diligent surface draining, by throwing the land into ridges, with trees and fences, effect the same thing in a degree. Thus, by protection, where we can, and compensation when we cannot, we manage to carry our points.

Besides, our autumns are such as eastern people only dream of, or get in fitful snatches, just to sharpen their appetite for more. Serene mild days, joining hands through October and November, smile upon us year by year; and if they fail, as the past season they did, we know that it is through forgetfulness, and that they will return with returning autumn. It was during such days, that a somewhat poetic friend, on the banks of the beautiful Rock river, before they were spoiled by white men's houses and potato patches, remarked, "that this seemed the sort of air, and this the region, where angels might come down to dance away the happy hours." My only doubt was, whether these beings did any dancing at all! I have no "authentic accounts" that they do.

Apples here grow with a thrift peculiar to the northern country. But a few, as yet, have got into bearing; but these show us that we need fear nothing from competition. We shall succeed, not only with the summer and fall varieties, but with the harder and long keeping fruits, which evince an effeminacy and weakness when grown in the milder regions of the south.

Pears are just beginning to show their fruits; and we shall have nothing to fear for them. The tree grows and bears as well here as anywhere.

Plums have been fruited for several years, in many of the choice varieties. In thrift of tree, productiveness, and delicacy of flavor, we have nothing now to wish. The little pirate of the crescent, the curcu-

lio, is here; and the Green Gage, with its kindred sorts, are made to suffer. The less delicate flavored varieties are often passed by, in his preference for these.

Of cherries, I cannot give so favorable an account, though we have enough to encourage us in this direction. The Morellos and kindred sorts meet with no difficulty. The May Duke has borne for several seasons. At our horticultural exhibition in June, our tables showed fruit of the Black Tartarian, Elkhorn, Waterloo, and White Ox Heart, and many other varieties were ripened too early and too late for that exhibition. There are plenty of trees in our gardens large enough for fruit, which show no tendency to disease. Our hopes are, that we shall have cherries enough when we *know how to raise them*.*

Peaches and nectarines are more precarious than cherries. The west winds of winter, the cold succeeding mild weather, the dry winds of spring, the peach worm, and I know not how many other calamities manage, one or all, to fall upon the poor peaches. We can, hitherto, hardly calculate on them oftener than once in five years. Still, everybody has peach trees. Their bloom is beautiful, when young; their thick bushy habits, and abundant foliage, are highly ornamental; and if any fruit *is* obtained, so much clear gain.

With strawberries we have made little headway. A Cleveland gentleman once sold us Hovey's Seedling, which was assiduously cultivated in all our gardens for several years, without a berry; and then proved to be a worthless Hautbois, barren in England this thirty years. We have since the genuine; but get little more fruit from it than its counterfeit. A plant known here as Grove End Scarlet, bears abundantly.

Of other varieties we have many, but imperfectly tried as yet. Of the twenty new, Long Island varieties, originated by "a single nurseryman," we have none, and shall try to get along without them.

Raspberries are in the same category with strawberries. The tender varieties do not succeed well, with the culture they get. Hardy ones do well, and bear abundantly. The old Barnet is hitherto the most successful, though the Franconia bore well the past season in some of our gardens.

Gooseberries—what shall we say of gooseberries? If Lancashire produces more or better, with the same culture, right glad are we. Mildew, or no mildew, our gardens give us *bushels*, almost as plenty as *bushes*. We have nothing to ask here.

Of currants and the like, we can say the same. The culture of grapes is more advanced than that of any other small fruit. The standard variety is the Isabella. The Catawba will hardly ripen its fruit with uniformity. Winne, Clinton, and similar small sorts, are plentifully distributed. Two or three new or unknown varieties, earlier than the Isabella, and as good in size and flavor, have been exhibited at our horticultural exhibitions.

In the matter of ornamenting grounds, and shading streets, those who care for it work at disadvantage. The magic ideas connected with such phrases as "corner lots," "rents," "double in value," "going up," are too much for "trees," "shrubbery," and "roses." Sometimes the two sets of ideas can be yoked together, and made to pull the same way, and then "a smashing business" is done. Once in a while, the love of the beautiful gets the upper hand, and keeps it. The gentler part of human creation feel less enthusiasm about "corner lots," etc.; and their aid can al-

* Our western readers will find Prof. TURNER'S remarks on the cherry, in our last number, valuable on this subject. ED.

ways be rallied for such delights as their mother Eve knew, in the days of her innocence. Hence, we make headway. Our streets get acquainted with new trees; our walls feel the embrace of new roses, and our gardens get help to smile from new shrubs and flowers. The numbscull, with the solidest wooden head, can feel a little when fine flowers and luscious fruits are put before his eyes; and hence the ground we gain works in multiplying ratio annually.

Our horticultural society, of about eighty members, though with but few workers, keeps sedulously but silently in motion, aiming, by repeated blows in the same direction, to produce an impression. There is evidence that it is effecting something. But I am spinning too long a yarn, and will stop here.

J. A. WIGHT.

Chicago, Illinois, February, 1849.

We thank Mr. WIGHT for his graphic and vivid picture of gardening at Chicago; one of the most remarkable of all our new western cities.

It will strike some of our English readers as not a little remarkable, that in a climate so apparently unfavorable in its winter and spring temperature as that of Chicago, so much can be done; that pears, apples, plums, etc., can be grown in abundance, and of the finest quality, as open standards, when in their mild climate, walls are almost everywhere needed to get a ripe fruit of good flavor. This is owing to the *tropical summers* of almost all the United States; the abundance of sunshine that ripens both fruit and wood so perfectly.

Chicago is so peculiarly exposed to cold winds, which sweep across a lake surface, almost like that of an ocean in extent, that we commend to all amateurs there the study of the admirable method of protecting gardens against high winds, adopted by Mr. TUDOR, in his celebrated Nahant residence, near Boston,—and which we have described, in volume ii, page 57. A garden at Chicago, treated in the “Tudor manner,” would have a climate comparatively as bland as that of Madeira. ED.

COAL ASHES VALUABLE AS MANURE.

BY WEST JERSEY.

SIR—Can you give some of the readers of the Horticulturist information of the virtues of anthracite coal ashes, their chemical nature, their strength, compared with wood ashes, and to what soils or plants they are particularly suitable?

I do not remember seeing anywhere a statement of their qualities, except a late remark in your monthly, that they are a good dressing for cherry trees. It is the prevalent opinion here, that they are absolutely good for nothing as a manure; and,

consequently, they find their last resting place in the street.

Our soil is light and sandy. The farmers just here prefer lime and ashes, while two or three miles off, where it is heavier, they use marl abundantly. We have many old gardens that have been manured so often they are too stimulant, and cause the produce to “wither away” under our hot suns. I know this can be remedied, by mixing with them a heavier soil, &c.; but I have been wondering, lately, whether

coal ashes might not prove suitable by supplying them with mineral matter.

If you, sir, can inform us of their practical uses in any way, you will at least much oblige your subscriber, WEST JERSEY.

January, 1849.

.....

ANSWER.—The only analysis of our anthracite coal ashes, that we have seen, is the following, by Professor EMMONS, of Albany:

<i>Analysis Peach Mountain Coal—Gray Ash.</i>	
Silex and silicates,.....	70.34
Sulphuric acid,	1.50
Chlorine,	0.06
Carbonate of lime,	8.36
Phosphate of lime and phosphate peroxide of iron,	4.50
Carbonate of magnesia,	1.84
Alumina and peroxide of iron,	2.00
	97.50

Prof. EMMONS adds to the above analysis, that "we may suspect the presence of phosphate of lime in coal ashes, and hence, practically, that they are of importance in agriculture, even though we omit to notice the carbonate of lime and magnesia which they contain."

Now to make the matter plain, let us compare roughly the value of coal ashes, as regards *lime*, &c., with the ashes of the oak tree, one of the commonest kinds of fuel.

According to an analysis of the Royal Oak, (LIEBIG's,) the ashes of that tree contain over 50 per cent. of lime, over 5 of potash, 3 of magnesia, and not one part of silica. Another analysis of the White Oak, (BERTHIER's,) gives 3 per cent. of silica. Let us put the two ashes in contrast, so as to show the proportional value in lime, potash, &c.

<i>Coal Ashes.</i>		<i>Oak Ashes.</i>	
Lime,	8.36	Lime,	50.58
Phosphates,	4.50	Potash,	5.65
Silica,	70.34	Silica,	3.37
<i>Or Elm Ashes.</i>			
		Lime,	47.80
		Potash,	21.92
		Silica,	3.07

A comparison of the above will show that fresh wood ashes contains about six

times as much lime as coal ashes; and that it is also far richer in potash, which exists in but very small proportion in coal ashes. It is evident that though by no means valueless, in these ingredients, coal ashes are not comparable in value to wood ashes, where lime, potash, or phosphates are required.

But the largest part of coal ashes is silex and the silicates. Our readers must not look upon these as representing sand or flint glass; for a considerable part of silica is soluble under certain conditions, especially in clayey soils, and thus enters quite largely into the composition of certain plants. Some plants, such as the oak or the apple, contain very little silica,—say from 1 to 3 per cent. But Indian corn, (the stalk,) contains 29 per cent., rye 64 per cent., oats 53; hence it is evident, that if coal ashes contain a large per centage of silica, they must be highly useful to these crops, even though they contain little lime, &c.

We have before recommended coal ashes, as particularly well adapted for the *cherry tree*. This advice was founded on accidental experience, and not upon scientific knowledge. But a little investigation explains the reason. The bark of the cherry tree contains (Liebig) 19 per cent. of silica, while that of the apple or pear contains not a $\frac{1}{2}$ per cent. Hence, it is easy to see why coal ashes would produce little or no good effect on the pear or the apple, as compared with the cherry tree.

As the bark of the grape-vine contains (EMMONS) 14 per cent. of silex, there can be no doubt that coal ashes form a valuable manure for this plant.

As silica is only rendered soluble by an alkali, such as potash or soda, it is easy to see why coal ashes are more beneficial on clayey than on sandy soils, (besides rendering the former lighter.) Clay soils almost

always contain considerable alkali—sandy soils very little—and clay soils retain water, while sandy soils speedily lose it.*

Those who have been in the habit of throwing away coal ashes, as useless to all plants, will do well to keep them for all crops with stiff and glazed stems, abounding in silex, such as corn and grain, and for such trees as the cherry, the grape, the linden, and almost all evergreens, since they all require silica in the formation of their wood and bark.

AN INGENIOUS MODE OF TRANSPLANTING LARGE TREES.

BY ALEXANDER JOHNSTON, JR., WISCASSET, ME.

HAVING been a subscriber to, and constant reader of your excellent publication since its commencement, and having gleaned much useful and agreeable information therefrom, I feel constrained to say that I have often been disappointed in finding so little that would answer for our "latitude," as they say in the almanacs. Our winters are very severe, not only as regards low temperature, but in storms of driving sleet and drifting snow; and sometimes, as was the case last winter, we have torrents of rain, and a continual alternate freezing and thawing of the ground, which will destroy all small plants and seedlings, by *heaving out*, as we term it. We seldom see a word of caution or advice, in these matters, from any of our eastern friends, published in the "Horticulturist," for the best of reasons I presume; that is, their communications are mainly directed to improving our fruits, analyzing our soils, and recommending manures—special or general; while the wintry blasts sweep on, surcharged with death to every tender plant or "two feet" seedling throughout the state. I have lost many dollars, in "finding out," by sad experience, how to raise these small things. Last winter, out of 1000 Horse Chestnut seedlings, I lost 500 by *heaving out*. This

winter I lose the balance by a tremendous drift of snow, which, in settling, has broken the plants to the earth, stripping them of every bud and branch. I lose, also, two or three hundred fine budded pears, which, though staked and tied, are crushed to the earth by the enormous mass of snow, and well nigh ruined. I have several thousand seedlings of fruit and ornamental trees, now "in good case," and I mean they shall remain so in all time to come, as far as the elements are concerned. I have "seen the elephant," and learned the lesson. More anon.

I have often, *almost*, determined to give you my method of transplanting large evergreen and deciduous trees, with perfect safety and success, and as often something has prevented. It will suit our latitude admirably, and may find favor with all. It differs, somewhat, from any other practice that has come to my knowledge. Early last spring, near the first of March, I think, and before the frost had started, I undertook to remove a large apple tree, entire. Its circumference at the ground was 40 inches; diameter of the top, 21 feet. It grew upon a *wharf*, in the worst possible place for removal, or move after it was up. It was a very valuable tree, thrifty, and worth saving, though mutilated, and annually *clubbed* by scores of boys for its fruit.

* A mixture of cheap soda ash or dissolved potash, with coal ashes, just before using them, would no doubt add greatly to their value in sandy soils.

I commenced operations by placing a layer of sawdust and shavings, one foot in thickness, around the trunk of the tree, and extending about four feet from the centre of the trunk on every side. I then covered the shavings with a lot of fir boughs six inches deep, and trod the whole hard. My object was to retain the frost among the roots for a month or more. I succeeded perfectly.

About six weeks afterwards, say 15th of April, I cut a trench, two feet wide by sixteen inches deep, all around the covering I had previously placed, shaving off every root I found square up to the frozen earth, except a few very large roots, which were suffered to project a few inches. These roots were lashed strongly to the large branches of the tree above, to help support the great weight of frozen earth. The limbs and trunk of the tree were protected by old bagging, mats, &c. An upright, dry, spruce spar was securely lashed to the trunk of the tree, say fifteen feet in length, with a rope at the top, to act as a lever in breaking the tree clear in its bed. I had previously set up a *derrick*, with stays and blocks, wherewith to hoist the tree square out of its bed. Four board battens were nailed to the trunk of the tree; and outside the battens I passed the main lashing around, which was a short link chain. The lower purchase block hooked in this lashing, and the upper block hooked to the top of the derrick. The fall led through a single block at the foot of the derrick; and to this fall I attached two pair of oxen. When all was ready, I broke the tree clear with the upright lever, hoisted it, with the cattle, square up three feet, run under the tree, and into the hole, a stout new ox sled; then "lowered away handsomely," as sailors say, and the job was not quite done, yet very well begun. I dragged sled, tree

and all, up a very steep, narrow passage into the street, with the aid of tackle, cattle and *curious spectators*, where it remained over night. The next day I put on "four yoke" of heavy cattle, hauled it three quarters of a mile, planted it again safely, with the same derrick, in the garden of BARKER NEAL, Esq., where it now stands, secure as though it had grown there. The tree and earth weighed nothing less than $2\frac{1}{2}$ tons, many "teamsters" said 3 tons. It bore a few apples last year, and didn't know it had been moved till *boy time* came again.

Evergreens I have moved, on the same plan, viz.; by retaining the frost about their roots with a covering of boughs till April, when they will "come out" almost entire. I moved two splendid Norway Spruces, 20 and 24 feet high, last spring, and planted them safely on my own premises; beside a great number of firs. The success attending this method is certain; the expense very moderate. There is no need of a derrick and tackle in most cases. The tree can be pulled over, and placed upon a drag or sled, if not too heavy to raise again. I have moved deciduous trees, such as Rock Maple, Elm, &c., of very large size, in this way with gratifying success. As they grow without stopping, and very soon become large trees, the trouble and expense is not worth reckoning. I have tried all other methods, but, of course, like my own the best. I shall go in a few days to select evergreens to be moved in this manner.

The holes, dug for their reception, should be large, and the subsoil loosened; and every tree should be carefully set, the roots faithfully filled in with earth, and the whole trod firmly together, and secured from blowing over for one year at least. The aforesaid great apple tree required no stays. It would have taken a small hurricane to have

blown it off the sled even; so great was the weight of the frozen mass about its roots.

In conclusion, Mr. Downing, I hope *every man* in New-England, as well as "down east," will plant trees, tell each other how to get along, and subscribe for the "Horticulturist." Yours very truly,

ALEX. JOHNSTON, JR.

Wiscasset, Lincoln co., Me., February, 1849.

REMARKS.—Mr. JOHNSTON's mode of transplanting is new to us, and strikes us very favorably. No method of transplanting large trees, ever practiced under our own eyes, has ever been so successful as moving them with frozen balls in winter; and though the transportation of large trees may be easier when the ground is covered with

snow than in our correspondent's mode, yet the latter has the advantage of being performed at a season when replanting can be done much more completely than when the surrounding soil is frozen.

We are often impressed, in our somewhat extended correspondence, by the great extent and diversity of the United States, as a field for horticultural labors. Immediately after reading Mr. JOHNSTON's account of the frosty air of Maine, where the temperature of zero is considered a *comfortable* condition of things for a month to come, we opened an epistle from a friend in New-Orleans, (dated ten days before Mr. J.'s,) in which he dilates with *gusto* on the flavor of the first strawberries, gathered there in the *open air*! Ed.

HINTS ON THE FORMATION OF RURAL TASTE.

BY S. B. GOOKINS, TERRE HAUTE, IA.

HERE beginneth a chapter on AMERICAN RURAL TASTE. *American!* says Mr. BULL, turning up his nose at the idea of locality and nationality, in respect to taste, and especially American. Why not, sir? Genius has no locality, it is true; but its productions are modified by circumstances, as the mutations which have marked the progress of European civilization abundantly prove. Taste is the discrimination of beauty; and in proportion as it is good or bad, will this discrimination give character to the literature and arts of a people. The critic and the connoisseur profess to have attained a refined and exalted perception of the truthful and the beautiful; and the developments of genius, literary and artistic, attain their measure of perfectness, be it greater or less, under the guiding and moulding influence of their censorship.

But their perceptions of the truthful and the beautiful are not the coinage of nature's mint. The standard of perfection in the imagination of the critic, is also the product of antecedent causes; and the various circumstances of a people, in respect to manners, habits, soil, climate and institutions, political and moral, in their turn furnish a standard for the critic.

Take, for example, the architecture of a people. The roving tribes of the earth construct their habitations in a style demanded by their habits of life. The Arab tent protects its occupant from the scorching sun of the desert. The Indian lodge of buffalo skins shuts out the driving snow of the prairies. No enclosures secure the waving corn from trespassing animals; for there are neither corn to wave nor cattle to encroach. The seasons do not bring to

him a succession of seed-time and harvest ; but of hunting, fishing and marauding. He is here to-day, and is gone to-morrow. He has no local habitation ; and the arrangements of his domicil correspond with his social state.

Advancing from savage to barbarous, and from barbarous to civilized society, the operation of this law is equally manifest. If the state of society be such that every house must be a castle, will not this fact give character to its architectural designs ? What idea is expressed by the battlement, the turret, the castellated wall, but that of security from aggression, of protection from violence, of stately barons clad in armor, and dependent vassals seeking a refuge from lawless hands in the shadow of the citadel ? What is picturesque or poetical in the mouldering wall, with its ivy drapery, but that it tells of the days of chivalry, when knight-errantry did homage to beauty ? Wherefore sang Ossian not of the softly resplendent glories, the mild beauties of the landscape ? His muse, true to the inspiration of the spirit of his age, has chronicled not these, but the unriavailed prowess, the high-souled daring of his hero, age, and his heroine likewise ; for the spirit of the age allowed of no beauty that was not heroic. To a modern beauty, could the utmost stretch of his imagination have conceived the idea of such a being, in all the potency of rouge, bustle and bloom, soft charms and terrific fainting fits, his muse would have assigned a place with harlequins and other burlesques upon humanity.

Hence, the taste of a people is their sense of the fitness and adaptation of any particular work of art. It is the embodiment of their artistic designs ; and setting in judgment upon any particular style, will approve or condemn, accordingly as it approaches

or varies from its own standard. We admire the creations of the painter and the poet, not so much for their beauty as for their truth, and the very hideousness of the artist's production is often its real point of interest. So truly have past ages foreshadowed national taste, in their works of art, that in every sketch, however rude and imperfect, if truthful, the practiced eye detects those lineaments which mark its locality and date, with as much precision as the comparative anatomist determines the size, habits, disposition, and even the native country of an animal, by the inspection of a single bone.

American rural taste being in its nascent state, is now undergoing the moulding process ; and it is amusing and sometimes ludicrous to see some of the specimens of its apprenticeship. I will not aver that the marble column, with its sculptured capital, has ever actually found its way into the wigwam, and become part and parcel of it ; but I must be permitted to say, that some of our specimens of style present to the eye of the beholder a commingling of incongruities almost as absurd. They often remind me of a picture a friend once described to me, designed to represent the departure of the prodigal son from the paternal mansion. The interior of the apartment discovered the father in bag-wig, small-clothes, and embroidered collar, after the manner of the old English gentleman, drawing from an escritoir, of modern construction, the son's portion ; the son dressed in the style of an exquisite, of the present day, with a coach and four standing at the door ; while, in the back ground, the Constitution was pouring her broadsides into the Gurriere, a thousand years before the invention of gunpowder ! Should the production of this prince of artists outlive those of a RAFAEL or a MICHAEL ANGELO,

the antiquarian of a thousand years hence may be somewhat puzzled in assigning to it a particular locality and date.

The peculiarities which distinguish the American people from all others, are no less marked than those which have left their impress upon the works of art in ages past. In the first place, we are a nation of landholders, landlords,—not mere occupants, but owners of the soil. Without us, the world is divided into master and slave, nabob and serf, lord and vassal, or, at best, landlord and tenant; while here, every man may, if he will, stand upon his own freehold. The effect of this great American fact, upon our rural taste, will be its universal diffusion. It may not be that it will, in every instance, distinguish between the habitations of owner and occupant; for even in a very advanced state of general cultivation there will doubtless be negligent landlords, and tasteful tenants; but if any one doubts the influence of this fact, let him set about planting trees and improving grounds upon the land of another. If its power be not made manifest to him by this process, he must be a rare specimen of humanity indeed.

The eye of the traveller in Europe rests with delight upon fine displays of rural taste and architectural symmetry; but these are usually the offspring of concentrated wealth. Like the light in a picture, they stand out upon the face of the landscape to challenge his admiration, and to draw his attention from the dark back-ground of servility and vassalage which surround them. In the present form of their social organization, it is necessary to maintain an aristocracy. Their law of primogeniture and system of entailments are retained for this purpose; but we have banished them, as inconsistent with the principle of universal equality, which we have incorporated into

our political institutions. The one concentrates wealth, the other diffuses it. That great wealth is often a patron of the arts is true; but it by no means follows that it is essential to a high development of taste. The man of taste is the artist, not his patron. I have been through splendid gardens, the owners of which had set them up, as confectioners do their wares in the window, to be gazed at and admired; and I have seen such a proprietor, who did not know even the names of many of his rare plants. The difference between him and his gardener was that one possessed taste, the other vanity.

We are furthermore distinguished as a people of peace. It might not be easy to convince a Mexican of that fact, just now; but it is nevertheless true. Peace is our policy; and it cannot be otherwise than that its softening and mellowing influence should be thrown like a veil of light over our national taste. Posterity will find along the track of our history no baronial castles, whose puissant lordlings have exercised despotic sway over a territory forty miles in extent; no ancestral halls, decorated with helmet, spear and cuirass, grim mementoes of a blood-thirsty, revengeful race; no footprints of large standing armies, whose errand on earth was to scourge and to destroy.

Individual and personal responsibility, to man and to his Creator, with its long train of charities, diffusive benevolence, and other blessings have also taken the place of asceticism, seclusion, of veiled nuns and hooded monks. When we shall be numbered with the ancients, no mouldering abbey, in the dim and misty retrospect, will lift its spires and pointed gables above the clouds of ignorance and superstition, in which its foundation was laid. Education universally diffused, alike the hope of the patriot

and the theme of the demagogue, with the iron pen of the steam and the lightning, is writing its record upon the monuments we are now rearing along our pathway.

I cheerfully acknowledge my obligations to a pen, very familiar to the readers of this journal, for the most valuable efforts in this delightful work of beautifying the earth, and of moulding into forms of surpassing beauty the materials of which our national rural taste is in process of formation. The country owes a debt of gratitude for the *Landscape Gardening*, the *Cottage Architecture*, the *Fruits and Fruit Trees*, and the *Horticulturist*. I admire such rich and tasteful displays of our noble art as the manor of Livingston, Beaverwyck, Blithewood, and others. These costly specimens of architectural grace and rural beauty, while they elicit our admiration, are perhaps in some danger of begetting in the minds of the masses the erroneous impression, that the pleasures of tasteful cultivation are not within their reach. The farmer, for instance, of one, five, or ten thousand dollars, takes up a work on cottage architecture. His eye glistens with pleasure as he runs over its tasteful designs. He commences reading, and goes on with increasing interest until he comes to the estimate! He drops his book, and raises his hands, in utter astonishment; and the vision of a rural cottage, with beautiful grounds, at which his imagination had been busily at work, is gone forever. Why, friend, did you think you could build a house without money? No, quoth he; but who would think of abstracting so large a sum from so small a capital? I wish you, Mr. DOWNING, to tell this man how much of natural beauty he might appropriate and enjoy at almost no cost at all. Make him understand that there is a bank, whose funds are exhaustless, upon

which he may draw, with the certainty that his checks will never be dishonored; although he may have neither a manor of Livingston, a Beaverwyck, or a Blithewood for endorser. Let him listen to the eloquent Lamartine: "Believe not that those enjoyments are reserved for the mighty of the earth, to the real owners of riches or of gardens of celebrity, like those of Versailles or the Tuilleries. * * *

No, there is no need of wealth, of magnificence, of extended domain, to enjoy all that God has hidden of happiness in the culture or spectacle of vegetable life. Those are pleasures which it is not given to fortune to appropriate and monopolize. Nature is never aristocratic. She has not endowed the poor with other perceptions than the rich, of natural delights, nor the idler than the laboring man. * * * The human soul is endowed with such a faculty of extension and contraction that it can overflow the universe, and, like Alexander, find it too narrow for its desires; or it can concentrate, and, as it were, fold itself up, upon a mere spot of earth, and exclaim, with the sage of Tiber, with his half acre sowed with mallows, and watered by a little streamlet,—'This little spot of earth is all the world to me.'

Every cit has his day-dream of a country seat or suburban villa, where the retired merchant, artist or professional man, relieved from the bustle of business, is to enjoy his eventide in the calmness and quietude of rural life. He looks forward to the time when the drudgery of business is to be abandoned, or left to other hands; the stock of money or wisdom he has acquired, standing as his permanent investment in the firm, against the labor, activity and industry of the junior partner, on whose head "no silver hair has yet appeared, to mark the wane of time." These imagin-

ings are usually the substance, and the only substance, of the things hoped for, and, as frequently, the evidence of things not seen, nor however, because the vision has no reality, but because there is no taste formed to enjoy it. The man whose entire active life has been devoted to ledgers, balance-sheets, and bills of exchange, might as soon expect to turn his attention to shoeing horses, and to find pleasure in the occupation, as to be transformed into an admirer of nature, which, after all, is the chief element of rural enjoyment, by simply removing from the city to the country. The city is no hot-bed for the propagation of this rare plant. Rural taste may, to a very limited extent, perhaps, be transplanted from its native soil to the town; but like flowers, in a dusty and illy ventilated room, it can have but a sickly shrivelled existence there.

This taste, like any other power of the understanding, is to be redeemed from man's natural downward tendency to laziness, ignorance and depravity, and, like

any other mental bias, can be inculcated with much greater facility early in life than at any time afterwards. As we have the elements of its universality in an extended proprietorship of the soil, I hope yet to see the homes of our fair land made beautiful to our eyes, and attractive to our children. There is a sublime moral in this. How many young men are entirely ruined by the want of an attractive home. A volume might be written upon this branch of the subject; but, lest I be wearisome to you, I will conclude these hints with my own day-dream, which is, that all the school-houses and homes of our land may be made so attractive to our children, and our children's children, that the vicious pleasures and excitements of the town shall not be sufficient to seduce them from their love of the country, and to Him who, in the benevolence of his nature, has given them such ample sources of pleasure, and so rich a heritage.

S. B. GOOKINS.

Terre Haute, February 24, 1849.

A HINT ON KITCHEN GARDENS.

BY GEO. KIDD, RED-HOOK, N. Y.

WILL you allow me, through the columns of the *Horticulturist*, to suggest to those about forming new gardens, that a deviation from the usual European mode is desirable. It is too generally the case, along the Hudson, that the formality of the kitchen-garden, and its close proximity with the mansion, mars the effect of a fine landscape; and the necessarily tedious mode of cultivating it, is by no means in accordance with the energetic character of the Americans. It is desirable, in many respects, that the kitchen-garden should be near the barn-yard, and so arranged that

the bulk of the work may be performed with the *plough*.

The ground should be thoroughly subsoiled previous to cropping. All crops should be in continuous rows,—allowing a greater distance between the drills of the smaller vegetables than in the old method.

There are various implements to be procured at the agricultural warehouses, adapted to the cultivation of even small vegetables, like onions, by horse power.

All cross-walks, alleys, and the usual borders for flowers being dispensed with, the ordinary allotment of space will still

answer. The advantages of this plan are, first, a great saving of labor; and next, the greater expedition with which the work is done. The latter is an important consideration to most of us on the Hudson; as the spring opens so late, there is much to be accomplished in a short season. The gardener will also be enabled to turn his attention earlier, and more fully, to the

lawn, walks, shrubbery, &c., as well as the cultivation of the finer fruits.

I introduced the practice with the plough several years since, and the result has been highly satisfactory. [Excellent advice. ED.]

Respectfully yours,
GEO. KIDD,
Gardener, with ROBERT DONALDSON, Esq.,
Blithewood, Dutchess county, N. Y.

Red-Hook, N. Y. March 8, 1849.

VARIETY IN ORNAMENTAL PLANTATIONS.

BY WILLIAM BACON, RICHMOND, MASS.

OUR American forests are justly the admiration of all travellers. Rich, in the almost interminable variety of their products; majestic, in the huge, massive columns they present, rising in grand sublimity to support their own tall canopies; their leaves, varied in form, and beautiful in symmetry; their flowers, of almost endless name and hue; it is no wonder that they attract the notice, and call forth the raptures of all admirers of what is rich in perfection and beautiful in loveliness.

But it is amid the glowing scenes of autumn, when the winds are pealing their earliest dirge over the decay of summer; when every leaf is arraying itself in the drapery of death, dyed in its own heart's blood; when the hillside and the grove present every hue that the imagination can inspire, or the pencil portray, that our forest retinue puts on its most fanciful garb, and attracts, with most admiring wonder, the fond gaze of all beholders.

If *variety* makes the forest so beautiful, why does it not give equal interest to our parks and avenues? Yet, in these repositories of improvement, how seldom do we see its nature studied, or its interest excited! "All elms," was the exclamation

of an astonished visitor on Boston Common, the first time its graceful avenues burst upon his vision. And in looking over the studied lines or fine groups of trees, planted by the hand of man in different sections of the country, we find the same tasteless *similarity of kind* to exist almost everywhere. In most sections, the maple has been the subject of the mania; and whether soil or other circumstances would warrant its success or not, the maple has been the prominent favorite of all tree planters.

Why this unanimity and uniformity of taste we never could determine; but are rather inclined to impute it to Yankee go-ahead-iveness, than any other cause. Many, no doubt, will say its a beautiful tree; and what tree of all our lengthened vocabulary is not, when placed in circumstances favorable to a full development? Is not the oak as beautiful, with its long, brawny arms, or the elm, with its thousand tiny twigs, growing from the ground to the parting of the branches, and making it a pillar of verdure, from the root to the apex? What is more beautiful than the beech, adapting itself to every form, the most romantic fancy can invent? We have one in our mind, at the present time, which has

had more genuine admirers, perhaps, than any maple that ever grew. Its trunk rises about seven feet before the branches, which are very slim and thrown off. The original top is nearly a semicircle, with branches rather decurrent, top thick. For some six or seven years, the main shoot has arisen above the original head, and formed a beautiful spire over its summit, so that its present form is very prettily illustrated by a spread umbrella. And who knows but that other beech trees, planted out under favorable circumstances, may assume equally fantastic forms. At any rate, they will be beautiful in their expanding youth, and grand trunks, and venerable heads, in honorable age. Then there are also our hickories, the ash in its varieties, the birch, and, indeed, the different tribes of our sylvan denizens. How beautiful they would all be, interspersed by the tasteful hand of fancy by the wayside, or in groups, flourishing in each other's shade, and with sheltering arms shielding each other from the sunshine and the storm. Then, too, our beautiful evergreens, (we protest against the use of the pruning knife, in their behalf,—get such as have roots and health, to nourish all their branches,) our long neglected, but rich and beautiful *hemlock*, the pines in their variety, with the firs, the cedars and spruces, thrown in to give variety to the foliage of summer; to act chief mourners in the desolations of autumn, and scatter many a cheerful smile along our pathway, through the rugged storms and cheerless cold of our winters.

Who would not love to wander through such an avenue in spring, when nature is bursting into life, and witness the varied forms of leaf and flowers, as they expand into perfect being; to sit beneath their shades in the heat of summer, when in their fullness of verdure they woo the cool-

ing breeze; and in autumn, the time of "the sere and yellow," who will not see beauty there, in that fading foliage, in comparison of which that of our present avenues, composed of single species, is but a pleasing monotony.

In this age of rural improvement, when parks are springing up by magic around a thousand dwellings, and in places of public resort, when tree-planting in our highways and byways is giving beauty to the public thoroughfare and the solitary place, is it not reasonable to hope that a reform will present itself—that nature will be followed more, and dull, monotonous art studied less? Now that the kind influences of spring are again upon us, and nature is again wooing us back to her fond embrace, by her resistless charms; now that thousands are busy in enriching their grounds with her noble offerings, will not *many* of all the numberless planters help to carry out this project, of varied tree-planting.

We are aware that the objection may come up, that the farmer is in a busy season, and that others are engaged in pursuits that leave but little time for the employment; therefore, they must put out such trees as are most easily obtained, and will be most likely to succeed. But let us remember that we plant for ages; that other generations will arise to admire or reprove our taste, and enter upon the realities of our creation, to enjoy the shades, and gaze upon the beauties we have scattered around. And in view of this, who will not be stimulated to do well and wisely what he undertakes? The extra labor of planting a tree well,—what is it, compared with the success attending its performance? Even if a few less are planted this spring, or next autumn, in consequence of the pains to have it well done, a realization will be found more than sufficient for the toil.

You yourselves will be encouraged in the labors of your own hands; and others, hitherto faint-hearted and inactive, will witness your triumphs, and imitate your example, in these labors of private interest and public philanthropy; and so the work

will move on, through your influence, until its consummation is attained, and our cultivated landscapes, in their farthest nooks, are clothed in new beauty and loveliness.

WILLIAM BACON.

Richmond, Mass., March, 1849.

NOTES ON THE FORMATION OF VINE BORDERS.

BY WM. SAUNDERS, NEW-HAVEN, CT.

THERE is, at present, considerable attention directed to the nature of the soil most suitable for the growth of the grape-vine; and, notwithstanding all that has been written about it, the subject appears still undetermined, if we are to judge from the many dissenting opinions that are from time to time promulgated. As it is by the interchange of ideas that we can correct false impressions, and ascertain true principles in any branch of science, I beg to offer the following remarks, in the hope of promoting the end in view.

We are informed, by the valuable researches of chemists, that all soils contain organic and inorganic matters; the first of these embrace carbon, hydrogen, oxygen, &c.; and the latter, potash, soda, lime, magnesia, alumina, iron, silica, manganese, sulphur, phosphorus, chlorine, &c. These ingredients are again found in more or less quantities in all plants; hence, it has been established as an axiom, that the soil which contains the greatest quantity of the constituents of plants, is the most suitable to their growth.

Chemical analyses have also established the fact, that *turfs from old pastures* present the greatest quantity of those constituents; the organic part of which, yields to plants humic, ulmic, geic and other acids, and supplying, by its decay, in contact with the air which penetrates the soil, am-

monia, carbonic acid, and other nutritive substances; and also liberating inorganic, that is, saline and earthy matters.

We farther learn, from analysis, that fresh stable manure, contains more or less of nearly all the inorganic constituents of plants, and from 20 to 25 per cent. of organic matters; and, I believe, it is considered to contain more of *all* the constituents than any other manure, and evolves, during decomposition, considerable quantities of carbonic acid gas, ammonia, &c.

This, then, would be my material for growing grape-vines. I would take bits of the turf, not exceeding four or five inches in thickness, from an old pasture of good loamy soil. I would add about one-fourth part fresh stable manure, as free of litter as possible; turn it in rough, and mix it well with broken bones, or rough charcoal. These, mechanically, would keep the mass of soil open and porous, and allow a free circulation of the atmospheric gases; and chemically, the bones would supply phosphate of lime, and other necessary elements, while the charcoal would condense ammonia, and by its colour increase the warmth of the soil. If additional stimulants were necessary, I would supply them in properly prepared liquids, which is the most scientific and beneficial manner of applying manure to the roots of plants. "Solid substances, whether vegetable, animal, or

mineral, cannot be introduced into the organs of plants, except in a state of solution with water, or when they are so minutely divided as to be carried along by adhering to that fluid." Another advantage is, that these can be applied at the very time the plants are in most need of it.

I have been led into these remarks by reading, in the *Horticulturist* of the present month, a letter from a "New-Jersey Subscriber," advocating the introduction of dead carcasses, &c., into grape-vine borders; but I confess my inability to comprehend his meaning, when he states that—"They should be freely mixed with the border, in such a position that the roots of the vines will not reach them until the flesh, fat, &c., is reduced to a proper condition for their consumption." I have taxed my ingenuity to find out this *position*, but have failed. The "mixing it freely with the border," and, at the same time, giving it a particular "position," perplexes me. But, would this not contain a superabundance of organic matter? I fear so. Thirty pounds of flesh contain as much nitrogen as one thousand pounds of manure. Besides, "Animal substances, in the act of decomposition, communicate their own conditions to other systems capable of entering into the same state, if no cause exist in these parts by which the change may be counteracted or destroyed." That no such cause exists in the roots of the vine, I have had ample proof. I have seen several instances, and heard of a good many more, where dead animals were introduced into vine borders, and in every case it has led to ultimate failure. I have seen it mixed freely with the soil, and also placed at a considerable distance from where the vines were planted; and in all cases that have come under my notice, the plants made a useless luxuriant growth for two or three years, producing little or no fruit, and that of a bad

colour and flavor; and on examining the roots, I invariably found, that wherever they had come in contact with the putrid flesh, they were entirely dead for a long way up.

On the other hand, from borders made up with loamy turf, in the manner stated above, I have seen the most beautiful crops of grapes produced. From such, I have cut Black Hamburgs, weighing from four to six pounds a bunch, of exquisite colour and flavor. A border made of these materials, laid on a well drained subsoil, either naturally or artificially made so, and judiciously top-dressed occasionally, to keep the roots near the surface. I have no doubt would stand good for half a century, without any danger of losing a crop, at least, as far as the soil is concerned.

These are my views of the subject; and if I am wrong, none will feel happier in being convinced of it. I might have entered more fully into detail, but consider this sufficient for my present purpose. I have no desire to dictate, but leave every one to form their own opinion. Past experience has induced me to make these remarks, as a caution to the sanguine and unwary, lest their first hopes should be blighted. And in conclusion, (as I observe a tendency to the contrary,) I would suggest that we bear in mind the old adage, and let us have "soft words and *hard* arguments."

I agree with Mr. GABRIEL, that the grape-vine will, in this climate, reward the cultivator, under proper treatment, sooner than any other fruit tree with which I am acquainted. I have seen eight pounds of fruit cut from one plant, within twenty months from the time that a single eye was put in to strike root. This was grown in a pot, in turfy loam and charcoal, stimulated with liquid manure.

WM. SAUNDERS,

Gardener to WM. BOSTWICK, Esq.

New-Haven, Conn., Feb. 16, 1849.

A VISIT TO KEW, THE ENGLISH NATIONAL GARDEN.

BY P. BARRY, ROCHESTER, N. Y.

In an ornamental point of view, there is not in England, and I might perhaps say in Europe, a place so interesting, at this moment, as the Royal Botanic Gardens of Kew. Previous to 1840, they were the property of the reigning sovereign; but since that time, they have become public property, and are now accessible to all, and, as far as possible, made subservient to the public good.

Since this change, the grounds have been greatly extended, by the addition of a portion of the adjoining property of the king of Hanover, and of the royal pleasure-grounds. The old kitchen and forcing gardens have also been thrown in,—this department having been removed to Windsor; thus giving to the gardens, to be devoted exclusively to ornamental trees and plants, an area, I believe, of nearly 200 acres. This enlargement, and the changes and improvements consequent upon it, as well as a thorough renovation of the old houses and grounds, have completely transformed the appearance and condition of the whole establishment, and placed it in a condition that entitles it to the name of the NATIONAL GARDEN. I was unfortunate in my visit, in being overtaken by a rainy day, that greatly diminished the pleasure and extent of my observations. I ought to have had a week, instead of a day, to examine such an immense collection of interesting objects. As it was, I had to exercise a great deal of self-denial. On entering the grounds, the first object that claimed my attention was *the old arboretum*. I had it in my mind beforehand; and I thought I must first of all pay it my respects. It is a circular

piece of ground, somewhat elevated, circumscribed by a walk, and very closely planted with hardy trees and shrubs, of great interest. I noticed fine specimens of *Turkey Oak*, *Cork Tree*, *Oriental Plane*, *Cedar of Lebanon*, &c. Of American trees, I saw fine *Lindens*, *Sassafras*, *Lotus*, or *Date Plum*, and many others. On one side stands the remains of a magnificent *Cedar of Lebanon*, that lost its top in a gale some eight years ago. Its gigantic branches cover I should think, 200 feet of ground. Close by the arboretum, and connected with it, is a fine collection of the new and rare evergreens. Prominent among these, is a beautiful *Indian Cedar*, (*Deodora*,) about 30 feet high, perhaps the oldest and finest in Europe; and here, I must add, that this noble tree is worthy of every word of eulogium that its most enthusiastic admirers have bestowed upon it. It is perfectly hardy, and grows rapidly; its habit is exceedingly graceful, and its foliage dense, and of a beautiful silvery green. This specimen is clothed from bottom to top with branches, forming a perfect pyramid, covering at the base probably 70 feet of ground, and standing, as it does, on a bright green lawn,—you may well imagine how charming. And then, its wood is hard, fine grained, and almost incorruptible,—rendering it of immense value as a timber tree. No wonder, therefore, that there should be such a mania for this tree, in a tree-loving and tree-planting country. It is said that Solomon, in embellishing the city of Jerusalem, “made Cedars [of Lebanon] as plenty as Sycamores, that grow on the plains.” There is every prospect that this *Indian Cedar* will, in time, be as plentiful as the *Larch* or *Scotch Fir*, on the hills of England

and Scotland. In this group are some fine specimens of the new and rare spruces; for instance, a *Douglassi*, (Douglass' Spruce,) 30 feet high; *Morinda*, or *Smithiana*, (Smith's Himalayan Spruce,) 5 feet; and of the silver fir tribe, a fine *Webbiana*, 6 feet high; of the Pine tribe, there are a great many of the rarer sorts from southern Europe, such as the *Cembra*, or *Cembran Pine*, *Laricio*, or *Corsican Pine*, *Pinea*, or *Stone Pine*, each 20 to 30 feet; and *Austriaca*, or *Black Pine*,—a hardy fine species; and from Mexico and California, bordering on the Pacific, *Pinus insignis*, a remarkable pine, 5 feet high,—an elegant tree, remarkable for the grassy greenness of its foliage at all seasons, not very hardy, but appears to do well; *Pinus sabiniana*, (Sabine's Pine,) 12 feet high,—a very pretty tree; the ends of the branches are like plumes; *Pinus Coulteri*, (Coulter's Pine,) resembles the former,—having the same glaucous foliage, but the leaves are upright; *Pinus excelsa*, or *Bhotan Pine*, a noble tree, with something of the habit and appearance of our White Pine; and many others.

From this interesting group of trees, I passed to the plant-houses. There are of these, I believe, upwards of twenty. Each one is numbered, and, as far as practicable, devoted to one family or closely allied families of plants; for instance, No. 1, the old Conservatory, a fine stone building, near the entrance, formerly filled with palms, recently removed to the great palmstove, of which I shall speak presently, now filled with large and beautiful specimens of *Proteas*, *Banksias*, *Dryandrias*, &c. No. 2, called the Orangery; an old house, built in 1761, occupied till 1841 with orange trees, now filled with the rare and more tender conifers, such as *Araucaria excelsa*, or *Norfolk Island Pine*; a tree of surpassing beauty, but unfortunately tender, and

fit only to grace the conservatory in winter, or the lawn in summer. There are specimens here of various ages and sizes, some of them the largest in Europe, except that in the "Jardin d'Hiver," in Paris. There are also fine specimens of *Cunninghami*, *Braziliانا*, and of *Pinus longifolia*, (long leaved pine,) and many others, besides immense specimens of *Rhododendron arboreum*, *Camellias*, *Camphor Tree*, &c. &c.

Coming to the smaller houses, we find No. 3 filled, mainly, with succulent plants, as *Crapulas*, *Mesembryanthemums*, *Sempevirums*, &c. Another with *Gloxinias*, *Gesnerias*, *Achimenes*, &c. Another with New-Holland plants, such as *Epacris*, *Heaths*, and *Acacias*. Another with *Cactus*, *Euphorbias*, and *Stapelias*. Of the cacti, the collection is immense. They are divided into classes, such as *Melocactus*, *Echinocactus*, *Opuntias*, *Rhipsalis*, &c.; and among them are specimens of extraordinary size; some are said to weigh nearly seven hundred pounds. And among the Euphorbias are some nearly as large as a flour barrel. Another house is devoted to *Camellias*; another to *Ferns*; another to *Orchideous* plants; which latter now attract a great deal of attention. Leaving the smaller houses, we come to the *Great Palm Stove*, which Sir WM. HOOKER calls "the glory of the gardens;" and so it really is. There is not, I think, in Europe its equal for elegance and completeness of finish; and so, well it may be, for it cost about £40,000, (\$200,000.)

It consists of a centre and two wings, (as you will see by Fig. 51.) The whole length 362 feet; the centre is 100 feet wide, and 66 feet high; and the wings 50 feet wide, and 30 high. It is entirely constructed of iron, stone, brick, and sheet glass,—not a particle of wood being about it. The roof is circular. The iron posts are inserted in

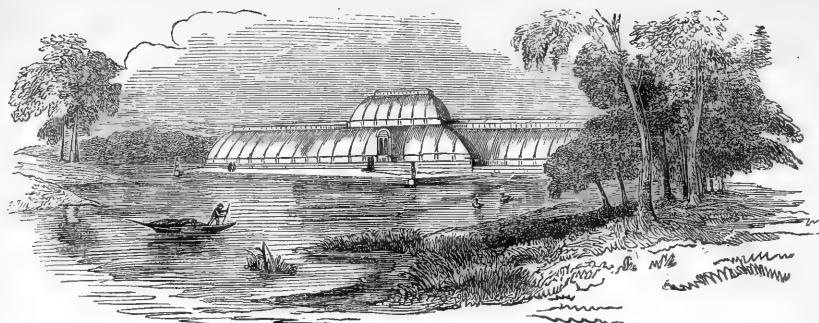


Fig. 51.—The Great Palm-House at Kew.

great Cornish granite blocks. It is heated by 12 furnaces, and by hot-water pipes and tanks, carried beneath the floor. The aggregate length of these pipes is about five miles. The smoke from the furnaces is conveyed through a subterranean flue, in a brick tunnel, 6 feet high, (through which one may conveniently pass,) to the distance of about 400 feet, where an ornamental shaft or tower is erected 96 feet high. In the top of this chimney and tower is a reservoir to supply the houses with water; and at its base is a coal yard, and from this the coal is conveyed on a railroad through the tunnel alluded to. In the centre of the building is a gallery 30 feet high from the floor, ascended by a spiral staircase. From this gallery the plants are easily watered over the top; and the taller plants are more easily examined, and appear to much better advantage than from the floor level. It is really a charming sight which you have from this gallery, looking down on magnificent *Palms*, *Sugar Canes*, *Cocoa Nut Trees*, the great *Strelitzia Augusta*, and many rare and beautiful tropical trees, in the most healthy and luxuriant condition.

It affords one some positive idea of tropical vegetation. The plants are all in tubs, so that each one is placed where it

ought to be, and can be moved about as circumstances may require. All the pillars in the house are clothed with climbing plants of variety and beauty. A *Thunbergia grandiflora* had reached to the summit. I was so much interested in examining matters in general, that I had little time to note any detail; but I saw a fine collection of *Begonias* in bloom; the beautiful *Pentas carnea*, covered with blossoms; *Goldsussia 'gypsophylla*, with very pretty light blue flowers; *Plumbago rosea*, from the East Indies, profusely covered with delicate rosy blossoms.

The design and finish of this structure, and the arrangement and condition of the plants now in it, reflect the highest credit on Sir WILLIAM HOOKER, and Mr. SMITH, the director and curator of the garden, notwithstanding they have had appropriations of money at will, which can accomplish almost anything.

On one side of the house is a pretty miniature lake, (as you will see in cut;) and the grounds around the house are being suitably laid out in flower gardens, &c. Some 30 or 40 men were busy grading and laying down turf, &c., when I was there. An extensive *Pinetum* is also being formed in its vicinity.

Returning from the Palm-house, we have

a fine view of a noble walk, not long laid out, almost through the centre of the grounds, and intended to be the main path from the entrance to the Palm-house. On each side of this walk is a row of fine young Deodar Cedar, designed to form an avenue. There are, also secondary rows, on each side, of *Junipers*, *Cypresses*, &c., besides clumps of *Rhododendrons*, *Kalmias*, *Azaleas*, *Laurels*, *Bays*, *Laurustinus*, &c. This is a broad and beautiful walk; and in a few years, when the trees have attained size enough to be conspicuous, it will be, altogether, the most delightful promenade about London, with all its beautiful parks and promenades.

I must not omit to mention the *Museum*, in which I spent a very pleasant and profitable hour. It is destined to be one of the most useful and interesting departments. The design is to collect in it all kinds of *fruits*, *seeds*, *sections of wood*, *gums*, *resins*, *drugs*, *dyestuffs*, and all curious and useful products of the vegetable kingdom. The collection is yet comparatively small, having been commenced but little more than a year ago; still, there are a vast number of interesting objects. I noted *Gutta percha*, in a vast variety of manufactured articles, and stages of preparation; *Caoutchuc*, the same; *Wax Palm*, of Brazil, and the wax in a pure state; *Ivory Palm*, *Manilla Hemp*, and articles manufactured from it; *Jute*, the fibre of *Corchorus capsularis*, from India, of which, it is said, one and a half millions of dollars' worth is annually imported to Great Britain; *Pottery Tree of Para*, and specimens of the beautiful ware made from it; *Aerial roots*, of a central American palm, so spiry that graters are made from it; *Ropes*, made of the inner bark of a species of *Hibiscus*; *Paper cloth*, in great variety, made from the paper mulberry; *Vegetable Ivory Nut*,—articles manufactured

from it; *Hats*, made at Singapore, of the pith of a tree; beautiful *Paper*, made of an East Indian *Daphne*, (*carmabiana*;) *Lace bark*, in various forms, from the *Lagetta tinctoria*; *Dyewood*, such as *Logwood*, *Fustic*, *Barwood*, &c., in a prepared state, beside parts of the trees; *Pens*, of a Chinese reed; many beautiful maritime plants, seeds and fruits, from all parts of the world, preserved; and fine paintings of flowers,—those of the splendid *Victoria Regia*, [the new immense water lily,] are the most attractive. These are but a few of the objects I find on my memorandum; but enough to show that a good beginning has been made. *

Connected with the museum is a fine library, but I had no time to examine it. In these hasty notes, I have omitted to mention a multitude of things that interested me much, such as fine specimens of trees and plants, that I met everywhere, in the grounds and in the houses. 20 years hence, under the present skilful and liberal management, Kew alone will be worth a journey across the Atlantic. What immense benefits such an establishment must confer upon a nation!

When do you suppose a move will be made in this country for a national garden? We ought to have one that would surpass all others; and we would, too, if men but loved trees and plants half as much as they do gold and silver. We have no volunteers to go to California to collect seeds and plants, as the English have done; but we have thousands to dig for dirty gold.

P. B.

Rochester, March, 1849.

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Our readers will thank Mr. BARRY, who has just returned from Europe, for his highly interesting account of the Kew Gardens.

We agree entirely with him, in his estimate of the benefit which would accrue from the possession of a great *national garden* in this country. Its annual cost would be a trifling one to the nation; and the in-

roduction of a single new plant, which, like cotton, should become a great staple, would pay the nation a hundred fold for all its cost. We shall return to this subject at some fitting opportunity. Ed.

THE SUREST MODE OF GROWING MELONS.

Nothing, in this country, surprises a gardener from England, or the north of Europe, more than the facility with which, in almost every part of the United States, melons are grown. To go into the markets of New-York or Philadelphia, in the month of August, and see not only the markets filled with melons, of delicious quality, and sold at a few cents each, but besides, those countless sloop-loads, lying at the wharfs, and wagon-loads, standing in the streets; all this gives him the impression of having arrived in a tropical, instead of a temperate climate. In fact, our summers are as warm as those of the tropics; and all fruits or vegetables which demand only a few months of growth to arrive at perfection, succeed admirably in all but one or two of the coldest of the eastern states.

There are two little obstacles, however, to the easy culture of the melon in some parts of the country. The first, is the *striped-bug*, which makes its appearance along with the first two leaves of the young plant, and devours them sometimes in a twinkling; so that, not unfrequently, it is necessary to sow the seed two or three times over to get a regular crop under way. The second, is the shortness of the summers *north* of New-York, which makes the melon crop, grown in the open ground, rather *later* than is desirable.

To guard against both these obstacles, we have found the following simple me-

thod, (which is not new to us,) so excellent, and so certain, that we gladly recommend it to all our readers who find their melon crop unsatisfactory, from either of the two causes pointed out:

Provide yourself with a couple of common hot-bed sashes. Choose a sheltered spot, in an open sunny aspect. Take two or three boards, about eight or ten inches wide, and, laying your sashes on the ground side by side, mark their size on the surface of the soil. Then make a frame, (or bottomless box,) by nailing four pieces of board together, so that the sashes will just cover the frame. Set the frame on the surface of the ground, the front (which faces the south,) a trifle lower than the back, so that the water will run off the glass. Level the surface of the soil inside the frame.

This frame should be made ready about the time you would plant melons in the open ground,—say, in this climate, about the first of May. (If you desire an early crop, you may commence ten days sooner.)

The frame is intended, first, to start the melons with a little more shelter than the open air; and second, to guard them against the striped-bug, till they are past the danger of its attack; that is, till they have made two *rough leaves*, when the insect seldom troubles them.

No manure is needed; and, consequently, scarcely any of the trouble of a hot-bed; none of the careful watching, and regular

attention, which a hot-bed demands earlier in the season.

In order to be able to remove the young plants, at the proper time, from the frame to the open hills where they are to grow, the seeds must be sown *on sods*. This is at once the cheapest and the best of all modes of raising seedlings, to be transplanted; because the planting in sod is taken up and replanted with all the roots upon it, which are not in the least disturbed.

Choose any mellow piece of turf, and cut the sods in uniform pieces, six inches square and two or three inches thick. Lay these squares of sod side by side, with the grass side downwards, so as to cover the surface of the soil inside the frame. They should, (to facilitate after removal,) be placed about half an inch apart, so as to be the more easily detached by-and-by. Next, cover them about an inch and a half deep, with some of the richest garden soil at your command. Then take a stick and make *lines* on the surface of the soil, exactly corresponding to the squares of the sods below the soil. This will tell you exactly where to plant the seeds.

As every one of these little squares of sods will form one hill of melons when transplanted, sow the seeds in the soil which covers them accordingly; that is, plant six or eight seeds to each square, and then thin out, when the plants form their rough leaves, to four plants.

We have said that no manure or bottom heat is necessary. The warmth of the sun, indeed, is such that, in bright days, you will have to open the frames for a couple of hours or more, in order not to bring the plants on too rapidly,—keeping them covered at night, and in all unfavorable weather.

About the 20th of May, or as soon as the plants have formed two strong rough leaves,

and the season is become warm and settled, prepare the hills thoroughly, where the melons are to grow, by manuring and trenching them deeply. Choose a moist day; and commencing on one side of the frame, slip the blade of a spade or transplanting trowel under one of the squares of sod. As you raise it up, place your hand under it, and you will find that it can be lifted up and carried to any part of the garden, without in the least disturbing the roots of the plants. Now open the surface of the hill, and *plant the sod*, watering it gently, and drawing the earth around the young plants. If done with even tolerable cleverness, they will not feel the removal in the least, (though melons are quite susceptible in their roots, and often fail entirely on turning them out of pots.) The sod itself gradually decomposes, furnishing excellent soil for the roots.

The plants should have been previously prepared for the open air, by gradually exposing them to the weather day and night, (leaving them uncovered with glass,) for a few days previous to the removal.

We find no difficulty whatever with the striped-bug, in this mode of growing melons. The plants are kept covered for the greater part of the time, while they are in the tender stage, and the insects do not find their way to them till the leaves are too rough to be palatable. The cold winds of the early part of the season, which frequently so far check melons, sown in the open ground, as to greatly injure the crop, are by this mode completely guarded against.

A common two-light frame, made in this rough way, will give plants enough to supply a moderate family fully with melons; and those who have experienced any of the difficulties we have pointed out, may make a trial of this mode the present season.

THE JAPAN CEDAR.



Fig. 52.—The New Japan Cedar, from a Tree six feet high.

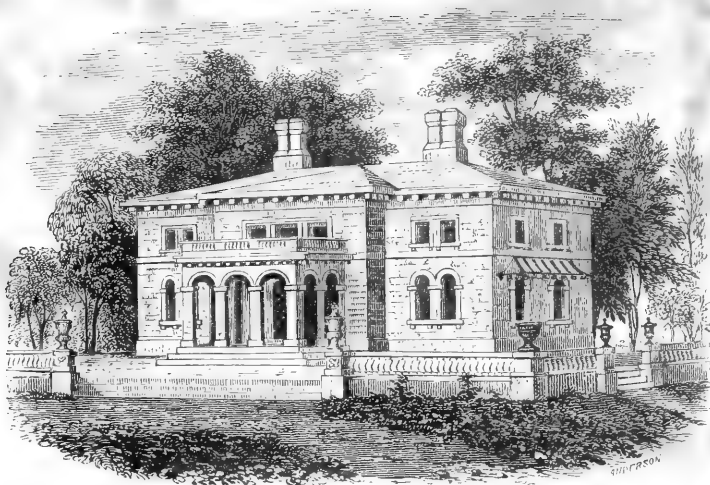
THE English periodicals abound with interesting notices of this tree, which, along with the *Deodara*, or Indian Cedar, is decidedly the rage in that evergreen loving country.

The Japan Cedar, (*Cryptomeria japonica*), which is nearly allied to the Cypress, is one of the many treasures brought home by Mr. FORTUNE, the Chinese traveller, to the London Horticultural Society. As it grows in the north of China, about Shantung, where the thermometer sinks nearly to zero, and forms large forests on the moun-

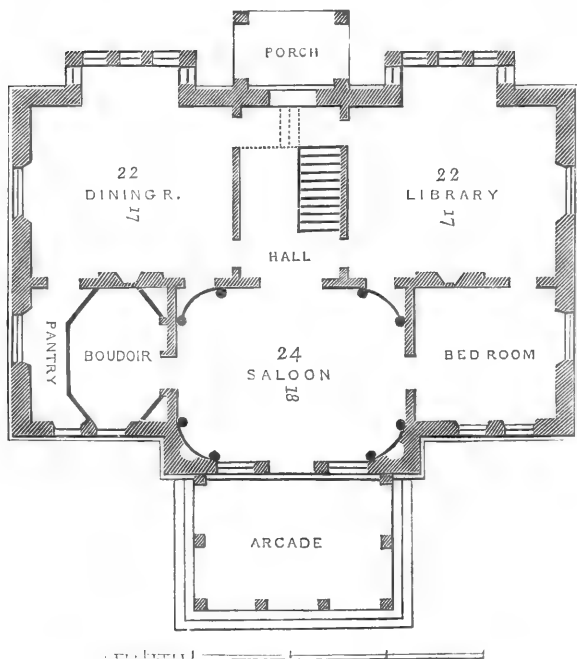
tains of Japan, at the height of more than 1000 feet, it follows that it is a hardy evergreen in all temperate climates.

The English accounts of this tree state, that for beauty, and rapidity of growth, it has no rivals among hardy evergreen trees. In the garden of the London Horticultural Society, young trees have grown *four feet* in a single season. It is described by some of its admirers, as the "Queen of Evergreen Trees." Its peculiar beauty is in the *graceful droop* of its branches. It is a great favorite in China for *avenues*, growing up 100





ITALIAN VILLA.



PRINCIPAL FLOOR.

feet high, with a remarkably straight stem, and dense and handsome foliage. The wood is said to be very hard, and elastic, and "withstands the most terrific winds or monsoons which sometimes devastate that country. It is employed in China for the high poles, which are everywhere placed at the dwellings of mandarins, to denote their rank, where it lasts for ages."

The Japan Cedar is said to be as hardy in England as the Deodar Cedar. As the latter tree, even in young specimens, has, in this country, withstood without injury a winter temperature of 6° below the zero of Fahrenheit, we may safely say that the Japan Cedar, or *Cryptomeria*, will endure the winters of the middle states, and possibly those of the eastern states, in proper situations, i. e., those sheltered from sudden *thawings* in winter.

The soil considered most favorable to the growth of this tree, is a sandy loam, mixed with some peat or leaf-mould. Those inclined to plant it where there is doubt of its standing the winter, will take care that the subsoil is *well drained* when preparing to plant it.

This tree is, of course, yet very scarce in this country. Plants about a foot high may, however, be obtained of BUIST, PARSONS, and other leading nurserymen. ELLWANGER & BARRY have also, we notice, imported a few for sale, and for trial, in the interior of this state. Every amateur will be glad to make trial of a tree that promises to add so much to the beauty of our lawns and pleasure grounds; and we hope, in another season, the Japan Cedar, if found quite hardy, will be imported, so as to be afforded at a moderate price in our nurseries.

DESIGN FOR A VILLA IN THE ITALIAN STYLE.

WE present our readers, in the frontispiece of this number, with a design for a villa, in the Italian style.

It is a symmetrical and handsome elevation, suitable for an open country, and demands the support of foliage, and picturesque scenery, much less than an edifice in a more irregular style.

The entrance front is that opposite to the view shown in the elevation. The prominent feature in the front, shown in the frontispiece, is the *arcade*, (or large broad "piazza,") so spacious as to form a fine apartment for summer use. Its connection with the saloon, the finest apartment of the principal floor, gives an elegance to the arrangement of this floor seldom found in villas of this size, and peculiarly suited to some of our fine river sites in the middle states.

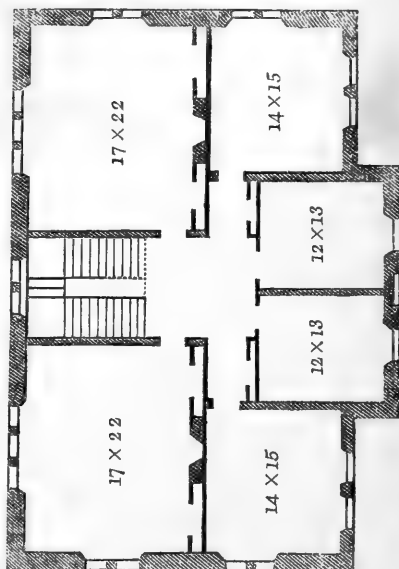


Fig. 53.—Plan of the Chamber Floor.

The plan of the second floor, Fig. 53, shows six bed-rooms of good size. The basement story of this house would contain the kitchen and domestic offices.

The almost cubical form of this design, renders it much less costly in construction than a more irregular villa of the same ca-

capacity. Having the kitchen, etc., below, it is peculiarly adapted to a site where the grounds are so arranged that every side of the dwelling is exposed to view.

The estimated cost of this design, executed in a substantial manner in brick and stucco, is \$8,000.

REVIEWS.

I. THE GENERA OF THE PLANTS OF THE UNITED STATES. By ASA GRAY, M. D. *Illustrated by figures and analyses from nature.* By ISAAC SPRAGUE. Vol. 1, 8vo. 100 plates.

WE ought to have noticed this most admirable work at an earlier date; for it is deserving of the highest praise we can bestow upon it.

It is a truly scientific volume, and one that is welcomed by the botanical student everywhere. It has been most favorably received abroad; and Prof. LINDLEY says, in a notice published lately, "its importance in a systematic point of view can hardly be overrated. Dr. Gray is the first of American systematic botanists."

The volume is most excellently and faithfully illustrated; and no European work, yet published, excels it in the perfection and accuracy of the drawings, which are made by Mr. SPRAGUE.

The purpose of this work, is to place before the student a clear and concise view of the characters of all the genera of North American plants. Along with the description, is given the figure of a species of every genus, showing, in detail, the foliage, fructification, and inflorescence. Every student of botany cannot command that personal instruction from able masters which will enable him to understand all the minutæ of arrangement and organization, upon which botanical classification and ar-

rangement depend. Such persons will find that clear and perspicuous illustrations like these, are of far more value to him in attaining his object than anything but the direct services of the very best instructors.

The volume now published is only the commencement of the work. The whole will be completed in several volumes, and will form the most valuable work, in the department of science to which it belongs, yet published in America. We cordially commend it to the attention of every botanist and every student of botany. They can add no more valuable volume to their scientific library.

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II. *Proceedings of the National Convention of Fruit-growers, held in the city of New-York, October 10, 1848.* Pamphlet, 8vo. 52 pages.

This long delayed report of the convention, held at New-York last autumn, is at last published. The delay was, we believe, owing to its having been under the disadvantage of an absence of the secretaries (under whose supervision it has been published,) from New-York, where it was printed; so that it has been carried through the press at a very slow pace.

As almost every reader of this journal will probably be in possession of the report before this number reaches them, we need not enter into any extended examination of its contents. So far as regards the busi-

ness accomplished at this convention, our pages have sometime ago placed an account of it before our readers.

Its principal value to most of our readers, however, lies in the comparative opinions, which it contains, respecting the value of different varieties of fruits cultivated in this country. As this convention embraced the largest assemblage of the best practical amateurs, pomologists, and fruit-growers, ever assembled in the United States; and as the discussions on fruits occupied two days, a great deal of highly valuable information was elicited. Every person, therefore, who is engaged in the culture of new or old varieties, will find much to interest him in the report of these discussions, relating, as it does, to the success or failure, the merits or the faults of a considerable part of the varieties now most in repute in this country.

Those who were not present at this convention will find, even in the brief account

given of these discussions, abundant proof of the value of such meetings to the country at large.

The universal feeling at this convention, however, was, that the good work was only commenced last October. To achieve what this convention proposes to do, requires not only the ablest collective talent in the country, and time to perform the necessary labor, but, more than all, a broad and suitable *foundation*, upon which these labors shall rest. The leading motive of action, therefore, at this convention, was to lay this foundation, by a systematic and thorough organization, and by the appointment of the most able committees in almost every state in the Union. Now that this has been done, and the whole machinery of a really national association is at work, we may confidently hope for the most desirable results, at the next session, which it is within the province or the ability of such a body to accomplish.

DOMESTIC NOTICES.

POMOLOGICAL CONVENTIONS.—*A. J. Downing, Esq., Editor Horticulturist*—In the March number of the *Horticulturist* appears an editorial article on the subject of "Pomological Conventions," which, upon its face, is so manifestly unfair, in regard to the acts of the New-York State Agricultural Society, touching its proceedings connected with the session of the "North American Pomological Convention, in September last, at Buffalo, that, reluctant as I am to appear in any public matter where a controversy is involved, I am induced to ask you, as a mere matter of justice, the insertion of this communication in the *Horticulturist*.

As the article to which I allude is recorded in the columns of this periodical, it is unnecessary to quote any portion of its language; but as the entire drift of it is an apparent reflection upon the *legitimacy* of the Buffalo Pomological Convention, you will permit me to give a brief chronicle of the doings of the N. Y. State Ag. Society on the subject of fruits, for the past three years, that the public may judge whether it has so far travelled

out of its proper range of duty as you would premise.

That Society is an independent body, and, I take it, has unlimited discretion as to the selection of what sub-divisions of agriculture it will devote its attention. In view of the disorderly condition of the fruit cultivation in this state, and of inducing some reform into a system of intelligent propagation of the best fruits among our rural population, in January, 1846, at the annual meeting of the Society in Albany, a Pomological Committee was appointed to report a select list of the different fruits to recommend for cultivation, and report thereon at the next annual meeting. This is the first attempt made in any American society within my knowledge, to introduce a reform into the classification of our domestic fruits, and to select from them a *circle* of choice kinds for cultivation. At the next annual meeting of the Society in January, 1847, that duty was discharged by the committee, in part, and the fruits recommended approved by the Society, a list of which will be found in its volume of Transactions for the

year 1846. The committee was continued by the Society, who, in January, 1848, made another report, which is published in the Society's Transactions for 1847. A short time after that, the executive committee of the Society resolved to call a Pomological Convention, to meet at Buffalo in September, 1848, to be composed of all such, either in the state of New-York, or from *other states*, as should think proper to attend—as much a *national* convention as any that has been held since, and having no other connection with the State Agricultural Society or its officers than such as common courtesy demanded. That convention met, and was composed of a numerous body of professional pomologists, and amateurs from at least half the states in the Union, although some prominent gentlemen abstained from giving it the light of their countenance, for reasons which have been pretty thoroughly developed through the proceedings of the "National Congress of Fruit-Growers," and the columns of the Horticulturist since.

Notwithstanding the *supercedeas* served upon the N. A. Pomological Convention by the committees of the "Congress," and their reiterated assertion of its dissolution, I cannot discover why, in the executive committee which that body appointed, its existence is not as apparent as when in actual session, and also, why that committee are not in the full and proper exercise of all its functions, until they declare their own dissolution, or their principals do it for them. So much for legitimacy and vitality.

As to whether the gentlemen appointed to act on the committee of the N. A. Convention, choose to do so or not, that is a matter of taste and inclination, purely within themselves; or whether that body may ever choose again to reassemble, will depend upon their own volition. Before adjournment, however, it *did* appoint another meeting to be held at such place as the next Show of the N. Y. State Ag. Society should be held; and I doubt exceedingly whether any resolution or mandate issuing either from another body of the kind, be it "Congress" or individual, can summarily *sponge* out its appointments. The simple truth is—and it cannot be controverted—that the body which styled itself the "North American Pomological Convention," called by the N. Y. State Agricultural Society, was the *first body* of the kind having "an odor of nationality" about it, which assembled in our country.

Now, how stands the matter with the "Congress," which its advocates contend to be the only *existing* organized pomological national body of the kind. Why, thus: and I intend no imputation upon the motives actuating the gentlemen who got up that affair—the American Institute of the city of New-York—a very valuable association, who seem to be possessed with a sort of ubiquity in all matters of patronage, appeared to take the initiatory of the "Congressional" movement some time after the action of the State So-

ciety in calling the "Convention," and apparently for the purpose of overslaughing its action in that branch of its labors, which one would think were quite as legitimate as those of mechanics and arts, to the improvement of which the efforts of the Institute were originally intended. That I am warranted in this remark, I need only say, that the leading gentlemen of the "Congress," although specially invited by the proper committees, did not attend the Buffalo Convention, but ever since its meeting have lost no opportunity in disparaging its action and continuance, and of exalting their "Congress" at its expense. With the comparative utility of the proceedings of the two bodies I shall not interfere. The public will judge for itself. But that the "Congress" was or is any the less an offspring of *another* institution than the Buffalo Convention, is sufficiently significant from the title page of its published "proceedings," a part of which reads thus:—"Held in the city of New-York, October 10, 1848, under the auspices of the *American Institute*." The great effort of the "Congress" appears to be to place itself in the foreground as the *only* body of the kind *now* in existence, having a national character; with how much justice, the premises detailed will show.

A word in relation to an allusion in the March article of the Horticulturist, personal to myself, and I have done. I quote from page 424:—"We will gladly assist, in our humble way, every effort for horticultural progress in our State Society, *so long as its plans are kept within their proper limits*, where we feel *certain*, under the *new board of officers*, they will be confined." For one, I trust the State Agricultural Society will feel duly grateful to Mr. Downing for his patronizing grace to its destitute situation, and that the unfortunate peccadilloes of its late administration in treading on the forbidden ground of pomology may meet with the compassionate indulgence of an outraged community! But I am forced to lament my convictions that its "*new board of officers*" will be quite as prone to discharge their duty to the great agricultural interests of the state, even to the promotion of their pomology, as their predecessors have been in times past, albeit under this threatened displeasure.

In plain English. The whole article in the Horticulturist to which I have alluded, displays an overweening solicitude in the writer to appropriate the entire pomological rule and action of the country to himself and a few others, and that no body emanating from any source than such as they may approve and control, let their services and aims be as beneficial as they may, shall be recognized—so far as this subject is concerned. *Lewis F. Allen, late President of the N. Y. State Ag. Society. Black Rock, March 9, 1849.*

REMARKS.—"In plain English," the Buffalo Convention was an especial hobby of Mr. ALLEN's, and we see he is a little out of temper with us be-

cause we are only willing to give it credit for having been an excellent *State Convention* of fruit-growers.

Of the "legitimacy and vitality" of the Buffalo Convention, as a State Convention, we have not the slightest doubt. And we are confident, not only that it was productive of much good, but that such a convention, held every year, at the State Agricultural Fair, will be of the greatest advantage to the community.

But our correspondent has not in the least proved that it was a national convention. He has, on the contrary, admitted that it was called solely by the N. Y. State Agricultural Society.

Now, we understand the nature of a convention to be this: a convention for local purposes may be called by the inhabitants or authorities of a town or village; that is a town convention. A convention for state purposes may be called by the authorities or inhabitants of a state; that is a state convention. But if the proper authorities or individuals in various *states*, for some purpose of national interest, see fit to call a convention, that is properly a national convention.

Now, the Buffalo convention either was a national convention or it was not. If it assembled pursuant to the call of a state society only, it was clearly a state convention. And this Mr. ALLEN, then President of the society, declares to be the fact. That the presence of several distinguished pomologists from other states, who were partly attracted to Buffalo by the great Agricultural Fair, gave the Buffalo convention an "*odor of nationality*" we admit, but it was only an odor.

The New-York convention, or as it is now called, "the Congress of Fruit-growers," on the other hand, was publicly called by the authorities of at least three different states; among them the two oldest Horticultural Societies (Mass. and Penn.) in the country; the call was avowedly for a national convention; and therefore we cannot but think it the only national convention of fruit-growers now in existence.

Mr. ALLEN alludes to the executive committee of the N. A. Pom. Convention, appointed at Buffalo, and from whom, we are told, the late anonymous circular from Albany purports to come. Will he tell us who compose this committee? We find no such committee in the published proceedings of the Buffalo Convention, and if such a committee really exists, why will they not sign their names to their circulars?

Our readers do not need any remarks from us touching the dictatorial position which our correspondent imagines us to assume with regard to pomology or pomological progress in this country. They, at least, know us well enough to feel that our only object in our remarks on Pomological Conventions was to point out how much, besides state conventions, the country at large requires another, of a national character; and that there can, in the nature of things, only be *one* body whose authority will be respected. We do

not care the value of a crab whether such a convention meets in New-York or Buffalo, but we must discharge our duty nevertheless in pointing out the difference between a really national and a really local association.

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SPECIAL MANURES FOR VEGETABLES. Two or three correspondents, since the publication of our remarks on manures for fruit trees, have expressed a wish for more light regarding the chemical composition of some of the leading vegetables.

They complain of the great difficulty of growing certain kinds of vegetables—beans, for example—in small gardens where the soil has been cultivated a long time, and where, from not being able to change such crops to new soil they fail in growing them, notwithstanding a liberal supply of animal manure.

What these vegetables want is a supply of *mineral manures*, and in order to know how to apply these most judiciously, our readers must know something of the chemical composition of each vegetable. We therefore give the following abstract of the inorganic elements which enter most largely into the composition of such vegetables. It is from the analysis of the ashes of these plants by DE SAUSSURE, SPRENGEL, and other chemists:

	Potash.	Soda.	Magnesia.	Lime.	Phosphoric acid.	Sulphuric acid.	Silica.
Peas,	35	10.	6.	3.	34.	4.	1.
Beans,	38	11.	9.	5.	31.	2.	0.
Celery,	22	0	5.	13.	15.	5.	3.
Onions, (bulb) ..	32	8.	2.	12.	..	8.	3.
Do stalk,	33	14.	..	25.	..	10.	19.
Cauliflower, ..	34	14	2.	3.	25.	11.	1.
Cabbage,	31	15.	3.	23	10.	12.	2.
Potato, (roots,) ..	48.	28.	4.	3.	4.	6.	1.
Beet, (root,)	24	53.	2	4	2.	2.	1.
Carrot, (root,) ..	53.	13.	5.	9.	7.	4.	2.
Parsnep, (root,) ..	49	10.	6.	11	2.	4.	3.
Radish, (root,) ..	21.	..	3.	8	40	7.	8.

We have avoided giving the *decimals*, as we only intend a sufficient sketch of the analysis to furnish practical hints—and the approximation is sufficiently accurate for this purpose.

The information which the practical cultivator will gather from the foregoing, is something like this; that *potash* enters more largely and uniformly into the composition of vegetables than any other of these elements, and hence that *wood ashes* are among the most generally useful applications to the kitchen garden. Next to this, common soda (which may be had very cheaply at the wholesale druggists,) is highly important. *Phosphoric acid*, (which may be furnished in the shape of bone dust,) is also an important element, as well as *sulphuric acid*. Lime and sulphuric acid, also considerable constituents, may be easily supplied by manuring with plaster (gypsum.) *Silica* for the most part enters very slightly into the composition of the above vegetables, with the ex-

ception of onions, of the ashes of which it forms 19 per cent. Coal ashes ought to be as beneficial to onions, therefore, as to corn, both of which largely demand this substance, of which coal ashes are mainly composed.

To raise good peas, a soil should contain plenty of potash, soda, and phosphoric acid; for beans rather more potash is necessary; celery demands potash, lime, and phosphoric acid; onions soda, lime, sulphuric acid and silica; cabbage, a large proportion of lime; potatoes, chiefly potash and soda; beets the same—but most of soda; carrots potash and lime; and radishes a large proportion of phosphate.

An easy way of applying potash or soda is to dissolve about ten lbs. in a hogshhead of water, and sprinkle thoroughly a load of crude peat or swamp muck. This will reduce the peat to the condition of an active manure, and then if used precisely as manure, it will furnish a proper supply of potash and soda for such vegetables as require it.

It is owing chiefly to the want of potash in the soil, that beans and other vegetables requiring *new* soil, refuse to yield good crops in old gardens. In such soils the potash is exhausted by long cropping.

The judicious use of animal and saline manures, will enable the kitchen gardener not only to raise much larger, but much better crops of vegetables than by the ordinary course of cultivation.

.....

BEDDING OUT FLOWERS.—As the first of this month is the season for preparing plants for bedding out, I venture a few remarks on this head.

Every good gardener, whether amateur or practical, knows that at the present day all the finest flower gardens depend mainly on half hardy or tender plants for their most lasting and brilliant effects. Such plants as verbenas, petunias, (I mean the fine sorts,) scarlet geraniums, salvias, penstemons, and the like, when planted in masses or small beds, give a richness and beauty to the flower garden which annuals and perennials can never compete with.

As I observe many persons are ignorant of the method of treating these plants, and usually keep a few in their green-houses, and thence turn them out early in May in their borders, without any *hardening*, whereby they greatly suffer, I will detail my practice for their benefit.

I mean now to give, not the best way for the plant grower on a large scale, but for those who, like myself, have a small collection, and wish to have their gardens handsome in summer, without giving much room to the necessary plants in their green-house in winter.

I suppose, then, that you have the mother plants growing in your garden in summer. About the last of August you take some medium sized pots, and stick a dozen cuttings in each, of all the sorts you wish to preserve. The old plants may then be left to their fate, and these "store pots" will

occupy but little room in the green house. They must be watered sparingly in winter, and must have plenty of light, so as to preserve them in a healthy state, not liable then to dwarf off.

About the 20th of March prepare a common frame, in a sheltered sunny place. You do not need anything but glass; manure, as in a hot-bed, is superfluous, as the glass will give heat enough, and you will cover the frame at night with mats or straw, to keep the frost out. At this time prepare some good, rich, light soil, with plenty of fine charcoal and rotten sods mixed in it, and turning the rooted cuttings out of the store pots, repot each singly in small pots, and put them in this frame. The frame should be kept pretty close till the plants have made new roots and commence growing nicely, when air should be freely admitted mid-day, when the sun shines. As soon as the weather becomes warm, expose them still more, until for a week or ten days before you wish to set out the young plants in the borders, (which will be about the 15th or 20th of May,) the sashes should be left off day and night. In this way, the plants will have much more health than if kept in the greenhouse till wanted, and will not be at all affected by the change from under glass to the open air, which often ruins half hardy plants.

I cannot conclude without recommending to your readers *Penstemon gentianoides*, and its varieties, as plants for massing. It is beautiful in foliage, and very rich in the color of its blossoms. Yours, *An Amateur Florist. New-York, March.*

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PEAR AND QUINCE STOCKS.—*Dear Sir:* I have been all the day engaged in my pear nursery; and having seen the result of an experiment made about this time last year, I give it you for the benefit of whom it may concern. I received a lot of seedling pear stocks last season; and when planting them out, I concluded to try if the roots would not grow. I therefore took off the tap root about four inches long, and planted it with the larger end just even with the surface. The cuttings were generally about the size of a swan quill. About one-half grew, and are larger than two year old stocks, received from Rochester, N. Y. Some of them would measure three-fourths of an inch in circumference, and three feet high.

When putting out grafts last year, I made use of the upper part of stocks as a temporary stake to hold a label, until I could put up stakes with numbers. The stakes were put in, and the pear switches left. I find to-day about two-thirds of them growing, with fine roots, and some few are nearly three-fourths of an inch in diameter, and five feet high.

Quince stocks received from western New-York are about the size of a goose quill,—but not a large one either. This induced me to measure mine; these were put out cuttings last January, and to-day measure one and a half to three inches in diameter, and three to six feet high. I have

never seen northern quince stocks before, and thought a freer grower was used than we had; but now, I shall not think of ever paying freight for such puny fellows. Indeed, cuttings prepared by me this evening, will be larger next January than these small stocks. I shall set to-morrow 1000 cuttings, and hope to have budded before October 1500 pears on quince.

I am satisfied that when pears become better known, that there will be an immense demand for the fruit, and that dwarf pears will be sought for.

I am almost afraid to say, that I have now here, somewhere about 170 varieties of the pear,—60 of them being upon quince, (50 varieties on the quince, received a short time only.) But when I say to those who are opposed to so many varieties, that my object is to *test* the varieties not adapted to the south, I am in hopes they will let me pass.

I do not know any place south of 36 degrees, where 20 or 30 varieties of the pear are fruited; therefore it is impossible to form a correct opinion. I will have some ten or twelve to fruit this season, and probably double that in 1851; and in 1852, all my dwarfs and an increase of standards. I intend to have 400 varieties, and to work 200 upon quince. I can afford to do all this, as I can sell enough to pay for all expense; and my labor is of no sort of value; for were I not at that, I might be in mischief.

I have now sold peach trees enough to pay for investment; and I am greatly indebted to my southern friends, and I hope the country will be again benefitted; for where 150 varieties of the peach come into bearing, I should think that there would be some choice varieties meeting us, especially as we have the *peach latitude*—deny it who dare!

I have some 20 or 30 seedling grapes, from Texas seed; the seed sent me by Mr. STEWART, of Montgomery, Texas. These same grape-vines are the hardest cases I have yet had. They grew the first year three to ten feet,—many of them in pots. I turned them out in a border, and headed them down, and they have grown none at all. I will try them this year and quit. I am, dear sir, sincerely yours, *M. W. Philips. Edwards, Mississippi, Jan. 24, 1849.*

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CAULIFLOWERS.—I have been eating delicious cauliflowers all winter, thanks to your directions in the *Horticulturist*. I sowed seed for the winter crop about the middle of May, and when winter approached I lifted the plants in a damp day, with a little earth attached to the roots, and set them on the floor of a warm cellar, under one of my out-buildings. They were most of them not even showing the least signs of flowering when they were put in the cellar, and I confess I was a little incredulous as to their "coming to anything" in their winter quarters. But they soon began to form blossom crowns, and I have cut the

whitest and most delicious cauliflowers from these plants since last December that I have ever tasted. As this mode of treating cauliflowers is not generally known here, I have quite astonished my neighbors by the sight of such a fine winter vegetable in abundance.

I obtained seed of the *Late Walcheren* variety, as you advised, at Thorburn's, in New-York. It is certainly the best cauliflower I have ever grown. Yours, *X. Y. Z., New-Jersey, March.*

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METEOROLOGY.—Our readers will remember Dr. COMSTOCK's theory, in a former number, respecting the influence of railroads and telegraph wires on thunder showers, &c. He has favored us with the following answer to his inquiries, received from an observer in New-Hampshire, to which we cheerfully give place. *Ed.*

DEAR SIR—I noticed an article in the *Horticulturist* for October, '48, from you, on the subject of "Meteorology." I have looked in vain for a reply in the two succeeding numbers, and now take the liberty to say a few words on the subject, by making a few plain statements.

1. I live in the extreme south part of this town, four miles north of the Merrimack river at Lowell, and four miles east of said river at Hudson on the east and Nashua on the west, or northwest.

2. The Boston and Lowell railroad was finished in 1835.

3. We have not had a single occurrence of violent thunder shower, of the old fashioned stamp, since that time, with one or two exceptions, that happened before the Lowell and Nashua railroad was built; and those came from the northwest, and were more out of the influence of the Boston and Lowell road.

4. Previous to 1835, it was very common for the lightning to strike trees, buildings, and other objects, and as often as once a year, or nearly so, it would strike on the farm I now occupy.

5. Since 1835, it has struck two trees only on my farm,—one in 1837, and one in 1846.

6. Showers rising in the west have all the appearance of those of former times, until they get in the vicinity of the Nashua road, when the lightning and thunder almost entirely cease, and in some instances the shower has been entirely broken up.

7. We have had more severe dry weather since 1835 than formerly.

8. We have had later frosts in the spring and summer, and earlier frosts in the autumn than formerly.

9. I have made frequent inquiries about the showers at the north, and found that people there did not observe anything different from former times.

10. There are no telegraph wires on the above named roads at present.

11. I have advanced the above ideas through the columns of the *Boston Cultivator* several

years since, and have had for answer more ridicule than reason.

They are true, however, and cannot be controverted. Yours respectfully, *B. F. Cutter. Pelham, N. H., Feb. 5, 1849.*

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ORCHIDEOUS PLANTS.—We have shown in our former letter that a majority of the Epiphytal species inhabit the branches of trees, and succeed best when attached to logs or billets of wood when subjected to artificial treatment; others, on the contrary, seem to do best in pots, and others still, are peculiarly well adapted for basket culture.

If grown in pots, the following is the soil recommended in the *Horticultural Magazine*, (1847:.) For the Epyphytal species in general, turfy peat in small lumps, mixed with broken pieces of flower pots, or of charcoal; some persons employ a mixture of turfy and old rotten wood.* Others use sphagnum moss, cut rather small, and suffered partially to decay. All these are suitable to the plants; and it is not material which is preferred. Indeed, this is a matter on which we find no unanimity among cultivators. Mr. PAXTON says,—“In a word, I recommend sphagnum, mixed with potsherds, in preference to anything I have hitherto seen used for the growth of orchidææa.” Mr. APPELBY, a gardener of note, says the soil he used was one-third turfy peat, roughly broken in pieces of different sizes, (the largest about the size of hen’s eggs;) one-third chopped pieces of poplar or willow wood, about the size of garden beans; and one-third chopped sphagnum, (swamp moss,) well mixed together. We find another letter of his, quoted in Mr. LYONS’ work on orchidææa, published in 1845, where he says he used the under stratum of sphagnum, which has become almost peat. These, he says, make a light open compost, which appears admirably to suit the plants, as they root in it freely, and thrive to my satisfaction. Any of these we would suppose to be a good compost; but sphagnum is so retentive of moisture that it will be difficult to preserve the roots in winter.

What we have recently used, and would recommend to your readers, was the top sod, (or turf,) of elevated hillocks, frequently met with in peat bogs, matted together with the roots of heath, whortleberry, and various plants, cut about two inches deep, sometimes more or less, but always avoiding the under stratum, and every part destitute of fibre, mixed with a little charcoal. Our plants did better in this than in any material we saw used. The turf, cut thin, will be always light and open for the roots to run in; and having so much fibre, it requires less drainage than sphagnum. If cut in dry weather, in the summer or autumn, and kept in a dry shed, it will be ready for use at any time.

Previous to potting, it is best that the plants should not receive water for a few days. Probably the most important point to be attended to,

in this operation, is, that the pots should be *well drained*. To accomplish this effectually, the pots must be filled two-thirds with potsherds, or charcoal; or it may be accomplished by inverting a smaller flower pot inside, and filling it round with charcoal, or broken crocks. (When inverting a pot for this purpose, it is necessary that either a bit of broken crock be put under one side, to keep the aperture open, or a piece broke off the pot, to accomplish the same effect.) Charcoal is perhaps preferable.

A perfect system of drainage is absolutely necessary; for, although all the species thrive best in great moisture, at certain periods of the year, still they will not succeed if water is allowed to become stagnant about their roots. It must, therefore, have a free passage to run through the pots. In potting, the plant may be placed about three inches above the rim of the pot, on the surface of the material on which it is to grow, setting its roots between the lumps of peat, and making the plant fast with pegs, to prevent its falling or being disturbed. As soon as the plant makes its roots, they take firm hold of the peat, and will quickly fix themselves. Among those best adapted for basket culture, are *Stanhopeas* and *Acinetus*, which direct their stems almost perpendicularly downwards, (like the tubers of the arrowroot,) instead of upwards; also those with pendant flower stems, as *Gongoras* and *Acroperas*, and others of naturally drooping habits, as some *Ericas*, and many *Dendrobiums*. Baskets for this purpose are either made of wire or oak branches, about four inches deep. They should first be lined with flakes of hypnum, or some similar moss. The turf already recommended is then broken in convenient sizes, and with a little charcoal made sufficiently high to raise the plants above the rim. Mr. APPELBY, already alluded to, says, in his fourth letter, he raises the *Stanhopeas* considerably above the rim of the baskets. This, we believe, a bad method for general adoption; for when the plants are placed on a large mass of compost, the flower stems, which protrude perpendicularly downwards, as before stated, are liable to damp off; and the flowers of those that make their way good are so small, and the stem, (owing to the depth of compost it has to pass through,) is so short that its beauty is greatly impaired. Besides, many species of this genus naturally produce much shorter stems than others; and if Mr. APPELBY’s system be adopted, these will perish ere they can reach the light. Consequently, the anxious cultivator may be for many successive seasons disappointed of seeing what he would expect to be a fine and showy species, or a new and rare variety.

We find some growers recommending *Stanhopeas* to be grown in pots; but this is a practice that cannot be too strongly condemned. We have more than once, when repotting *Stanhopeas*, found their flower stems coiled round the pot, till they became at length exhausted, and perished unseen.

We also have often had occasion to break the side of *Stanhoepea* pots, to preserve the flower stems. We see no reason why *Stanhoepeas*, like other Epiphytal species, should not be grown upon blocks. Indeed, we have grown the beautiful *Stanhoepea tigrina* in this way, to as great perfection as it would attain in its native (Mexican) forests. We grew *Stanhoepea aculata* in a similar way.

It does not follow, because found in open glades, that these orchids should be attached to blocks of wood, or suspended in the atmosphere, as Mr. APPLEBY has suggested. It is in such situations that most of our finest terrestrial orchids are found, and must be treated according to their nature. In those elevated districts are also found many truly Epiphytal species, growing upon single trees. But they are much more abundant in the low and humid forests, where shade and moisture predominate, as suggested in our former letter. They all require the same general treatment, except that those found in the former locality may be subjected to a lower temperature, less humidity, and a greater exposure to the rays of the sun; but these we would not recommend to too great an extent. For whatever elevation they grow in, or however much exposed to a tropical sun, they enjoy a free atmosphere, not like what they would be subjected to in many of our ill ventilated houses; and if we but patiently consult the laws of nature, we will readily perceive how wisely she provides for her children in all situations. Even in the tropics, where the solar rays are most luminous, the gigantic trees will, (as in temperate countries,) expand their foliage in the warmest season of the year, and afford partial shade to the more delicate orchids that inhabit their branches. They may be located in our houses so as to receive more light than the majority of the plants. To achieve this end, or rather, to imitate nature, we grew many species of *Catasetum*, *Mormodes*, *Myanthus*, &c.; (many of which are often found on single trees in open glades,) on the top of large blocks, fixed in stands, as described in our last,—a situation in which they seemed to delight, firmly attaching their viscous roots to the rough bark of the wood, from which they produce numerous secondary or lateral rootlets, which extended in every direction, as if in search of food. In this elevated location, they shared the same general treatment, shade and moisture, as the whole collection; but being nearer the glass, they consequently had more light, and dried sooner.

We promised in our last to refer particularly to some American, or Brazilian species. Among the multitudes of orchids that inhabit those countries, we believe the *Laelias* and *Cattleyas* worthy of precedence; not merely for the large size of the flowers of some, nor the deep crimson or delicate lilac of others, but the transparency of their texture, the exquisite clearness of their colours, the graceful manner in which their broad, flag-like petals wave and intermingle with every

breeze, and the simplicity of their treatment. Of the genus *Laelia*, there are several species, of which the *Laelia superbiens* is the finest yet known. This stately Epiphyte was first found by Mr. HARTWEG, collector to the London Horticultural Society; and also by Mr. SKINNER, who speaks of it thus: "Saw you ever anything like this? This most magnificent of all plants, I have sent several times. It flowers in November, and in some instances bears from 18 to 20 flowers on the stems, from 9 to 12 feet long. *Chuntla*, its native habitat, is very cold—55 to 65 degrees; and in Costa Rica, where it is also found, the temperature is 68 to 70 degrees generally."

Mr. BATEMAN, an extensive English grower, and author of a superb work on the orchidææ of Mexico and Guatemala, says that this plant is found growing out of the crevices of the rocks, in the cooler districts of Guatemala,—chiefly in places that are sheltered from the keenness of the northern winds. In such situations, the pseudo bulbs sometimes grow 22 inches high, and have flower scapes 4 yards long, crowned with upwards of 20 flowers; but this immense size is not common. When the plants grow exposed to the northern breeze, they are very small, and have an imperfect, stunted appearance. In England, the flower stems grow about 6 feet in length, and the pseudo bulbs usually about a foot. This species was in many English collections a long time before it flowered. The cause of their failure, in this respect, may be justly assigned to the fact, that when first introduced the plants were kept in high temperature, and a close, moist atmosphere. These conditions being most favorable to luxuriant growth, no doubt prevented the production of flowers; and it was not till the plants were subjected to a low temperature, that they showed any indication of bloom. It grows best, tied to a block of wood, and suspended from the roof. I am, sir, respectfully yours, M. C. Newburgh, January, 1849.

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THE GHENT GLADIOLUS. This new bulb, (*Gladiolus gandavensis*), is a great ornament to our flower gardens from July till October. The hue of the flowers is a rich orange scarlet, or fire color, the plant very vigorous, and suits particularly well our warm summers, giving us gay blossoms when the garden most needs brilliancy. Yours, *An Amateur Florist*. [*Gladiolus gandavensis* is worthy of our correspondent's commendations. We received a dozen bulbs last season from Mr. Van Houtte, of Ghent, which bloomed superbly in our garden for six weeks, and were greatly admired by all who saw them. Ed.]

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BURNT SODS.—*Dear Sir*: I agree with you fully in the excellent effects of burnt turf for enriching borders for roses. I prepared a wagon load last spring, and used it plentifully, taking away the top soil about my established plants, and found it to add greatly to the verdure of their foliage

and the brilliancy of their blossoms. Yours,
I. W. S., *Philadelphia, March 16, 1849.*

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DISCUSSION ON MANURES.—We find reported in the Boston *Evening Transcript* a highly interesting discussion on manures, which took place lately at the legislative agricultural meetings, held at the State House. The remarks of Col. WILDER, who occupied the chair, are so much to the point that we shall quote them at length:

"The president introduced the discussion, by saying that the subject was one paramount in importance to any other that concerns the cultivator of the soil. It is the great preliminary movement on which the farmer founds his expectations of a bountiful harvest, the sheet anchor of his hopes. Although he might plough deep and well, yet, without some correct knowledge of the substances he uses to fertilize the seed he buries in the earth, his success is almost as uncertain as the mariner's, who would plough old ocean without chart or compass.

"A soil of inexhaustible fertility, he said, was an imaginary idea; and although mother earth would yield kindly to the full extent of her ability, yet the time would come, sooner or later, when even the rich prairie lands of the west, would demand a return of the fertilizing elements which have been abstracted by vegetation; it is a matter, then, of vast importance, to learn how these materials can be procured at the cheapest possible price, and in a form to be applied with the greatest economy.

"Mr. WILDER proceeded to state that he was no chemist, and made no pretensions to farming, except as it is connected with gardening and the horticultural art.

"He had made some experiments with manures, some of which he would relate: He did not wish to be understood that he undervalued stable or barn-yard manure, but such as was purchased from the stables of the city, by the cord, when deprived of straw or decomposed, was in reality only half or three-fourths of a cord. To obtain a real solid cord of manure, equal in quality, and at less price, had with him been a great desideratum, and he believed he had succeeded, by making a compost of meadow muck, crushed bones, and leached ashes, in the following proportions:

"One cord of meadow muck, having been exposed to the action of air and frost at least one year,	\$1 50
Twelve bushels leached ashes,	1 20
Six bushels crushed bones,	1 50
Labor,	30

Total cost per cord,

\$4 50

"The bones and ashes were mixed together while the latter were in a damp state, and when fermentation had taken place, these were incorporated with the meadow muck. In this condition

the mass should remain until heat is generated again, when it will be fit for use.

"He had found this compost equal to any stable manure for root crops, grass land, gardening purposes generally, and for fruit trees. For the last two years, he had mixed his stable manure with the compost, and also had added to it one-eighth part in bulk of fine refuse charcoal from the depots of venders. This can be purchased at five dollars the cord, delivered, and does not much increase the cost above named.

"Mr. WILDER said, that since Liebig first promulgated his opinion as to the wonderful influence of charcoal in rooting cuttings of plants, and as a component part of soils, experiments have been making verifying its importance. He also informs us, that the volatile gas which arises from our stables and manure heaps, and descends in the rain and snow, and which we call *ammonia*, is the great fertilizer of the earth. To secure this subtle element, Mr. W. had added charcoal to his compost heaps, and as he thought with great advantage. It is very durable if not indestructible; a substance of great porosity, and we are told, he said, by chemists, that it will absorb 90 per cent. of its bulk of *ammonia*, but its beneficial effects are supposed to arise from its power of retaining this volatile gas, and yielding it up only as it is washed out by rains, or as the vital force of the root searches for food. He did not consider it a fertilizer in itself, but that it was a medium of administering nourishment, having used it with good success for green-house plants for many years.

"Mr. WILDER said the compost (with the charcoal and stable manure combined,) was the best he had ever used as a general manure. On fruit trees, its effects were remarkable.

"In the spring of 1847, he planted a square in the nursery with imported trees from England, this compost having been spread and ploughed in. These trees were from four to five feet in height, and although it is not usual for trees to make a large growth the first year, they acquired branches of three to four feet, and were so handsome as to command \$1.25 each for a row of fifty trees, without any selection.

"In June last, which is very late to set out trees, he prepared another square on rather poor land, and planted trees just received from England upon it. The soil had been thrown up to the frost the previous winter, and the compost here was applied in the trenches, near the roots. Mr. Wilder exhibited two shoots, which had grown from those trees since they were set out in June. The shoots were four feet in length, and the wood hard and well ripened.

"It is stated that on old beds, where charcoal had been burned ten years before, the corn and wheat to this day are uniformly better than on the adjoining lands, being more vigorous, of a darker green colour, and producing larger crops. A farmer remarks, 'I sowed fine charcoal over

my grass land in strips; these strips have increased one-half in product, and without any apparent diminution for five years.'

"Mr. WILDER mentioned several instances, showing the beneficial effects arising from the use of fine charcoal, one of which in the state of New-York, was an extraordinary product of wheat crop.

"Says an English gardener, 'my' compost consists of nothing but loam and charcoal, without a particle of manure of any sort; and I never saw the plant that did not delight in it, and every plant under my care, has some charcoal used about it.'

"As a deodorant or disinfectant, Mr. WILDER related the following experiment, which appears in a late English paper:

"Two fluids, and charcoal from peat, were prepared especially by different chemists for the purpose of depriving night soil, stable, and pig sty manures of their offensive smell—the fluids both proved ineffectual, but the charcoal not only entirely and instantly neutralized and destroyed the offensive odor, in each of these substances, but also deodorised the fluids themselves.

"Lieut. Governor REED, Hon. Mr. BROOKS, of Princeton, Hon. Mr. LEONARD, of Norton, Hon. J. C. GAY, Messrs. BUCKMINSTER of the Ploughman, BARTLETT, of the Cultivator, and other gentlemen, took part in the discussion.

"At the succeeding meeting, Mr. TESCHEMACHER said that the vast and almost inexhaustible subject of manures had always united itself in his mind with three great considerations.

"1st. On the nature of the crops to be raised.

"2d. On the nature of the soil from which these crops were to be obtained.

"3d. And the most important one,—the nature and application of the manure itself. He should be obliged to condense into a brief form what he had to say on all these heads. Every one knew if clover was wanted, a large quantity of lime was wanted; for tobacco, potash or soda.

"In England, after many years cultivation of wheat, all the cow-yard manure that could be heaped on the ground would not raise any more until bone dust was added, and with this many acres hitherto considered barren, had given excellent crops. The size and quality of turnips had been found to be much benefitted by the use of the soluble phosphate of lime.

"One question then is, what does the crop we require abstract from the soil during its growth and maturity? The question is answered by the various analyses of the crops which are now found in every agricultural treatise. But another and much more important question now arises; it is this:

"What part of the ingredient puts more bone and muscle into the animals which feed on them, and can we by particular measures increase in these crops the quantity of their ingredients? The first part of this question has been answered by

Liebig's last treatise. We knew before Liebig was born that the bones of animals were chiefly formed of the phosphate of lime, but we did not know that the phosphates of other alkalis formed considerable part of the muscle; this he has satisfactorily proved. In the lime district of Switzerland the cattle are much larger than where lime is scarce in the soil; and the great test of the quality of a crop is by its nutritious action on the animal, more than by its appearance or even weight; now it is evident that by offering as food to these crops a manure abundantly supplied with these ingredients, *combined with others ensuring a luxuriant growth*, we enable them to obtain a maximum thereof. My experience shows in the same weight of grain a difference of thirty per cent. in their ingredients, dependent on the difference of the manure; hence the consideration in the nature of the crops is of much interest. On the nature of the soil,—all soils are composed chiefly of sand, (silica) clay, (alumina) lime, magnesia, some organic matters as sources of carbonic acid, and a few oxids of the metals.

"Sand (silica) is chiefly of use to strengthen and stiffen the stems; for this purpose it must be dissolved by an alkali, (potash or soda.) This is usually found in clay, which as an ingredient of the soil or of the compost heap, is invaluable, although it never enters into the organization of the plant.

"When the chemist analyzes a mineral containing alumina, it is almost impossible for him to wash it free from the alkaline substances which he has used in his analysis; it grasps and retains these with the most invincible obstinacy, as clay in its natural state is always combined with small portions of silica and potash or soda.

"The president has spoken highly of charcoal, but by no means too much so, as an absorbent of the useful part of manure, ammonia. I have experimented many years with this substance, in various ways, and can amply confirm all he has said. Clay, however, I think if possible more retentive than charcoal, certainly more so as regards potash and soda, and may be had where charcoal is hardly to be procured. Clay, then, well pulverized by frost, is a most valuable addition to the compost heap; and a soil containing a fair proportion of clay may by manuring be rendered the most permanently rich of any.

"A light soil allows the valuable salts of the manure easily leached through by heavy rains, and one with too much clay does not permit them to mix freely, so that the roots of the crops can get access to their nourishment.

"The farmer, who studies the nature of his soil, will, while manuring liberally, be able to manure much more economically, than one who knows nothing on the subject. It is probable that the great differences of opinion which exist in the use of lime and plaster, have arisen chiefly from ignorance on this subject.

"I have not time to dwell on the third part of

this subject, but will state that in the Isle of Thanet, on the River Thames, where much seed wheat is grown, and where seeds of vegetables and herbs are grown to a large extent, the compost heaps are formed as follows: three or four inches of pretty good loam and turf, then six or eight inches of seaweed brought up from the beach in the immediate vicinity; then six or eight inches farm-yard manure, then loam, and so on, until the heap is several feet high. This is left twelve months to decompose; the grains raised are beautiful, large, plump and heavy; now here the ingredients are clayey loam to absorb. Seaweed contains soda, and a good proportion of the phosphates. The barn-yard manure, besides its soluble salts, contains ammonia; and the solid parts are by fermentation converted into charcoal and humus, which absorb the ammonia and preserve it for the use of the crop. Here then is not only every ingredient the plant requires, but also the store-house of alumina and charcoal, from which it extracts its food as wanted.

"I remember a discussion on the subject of whether manure was better used in a green state or after it had been kept for a year or more, and had become a black saponaceous mass. The question appeared to be settled in favor of this latter state, and this agrees with my own experience. If a manure heap be fermented under a good cover, it is converted into a black carbonaceous mass, containing nearly all the ammonia condensed in its pores, and is a most powerful manure."

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HINTS FROM THE SOUTH.—If your correspondents read as much of horticulture, &c., as they do of other matters, they would find much that they esteem to be quite new, to be really quite old. A reverend gentleman from the state of New-York,—one as fond of fruits and flowers as any one who delights to aid others,—the Rev. A. B. LAWRENCE, now in Louisville, Ky., instructed me in the art of *building with terminal buds* in the summer of '44 or '45, and told me, I think, that he had been taught it long, long ago in New-York state.

I see some ready hand is giving a cut backwards at somebody. All I have to say about it, is,—go ahead. I have seen a letter from one man, who was "immensely superior" to all other nurseries; and as to accuracy, why, Old Master could not hold a candle to him, for he did sometimes make a mistake; see "Curious Pomonal Freak," page 292, where a Russet grew, by mistake, instead of a Greening. I tell you, there are some folks who need a severe rasping down, and I hope "Old Digger" will do it. I have been cultivating a few plum trees from the north, (price 50 centh each,) for 15 years or over, and, as yet, have only seen a few hard things, which would make a pig squeal to taste them, and cause crab apples, cranberries and vinegar to blush for sweetness! But in sober earnest, I think I can

point to hundreds of dollars, swindled out of a small part of this country.

Please solicit "An Old Digger" to continue his notes. I love that sort of digging; and assure you, that an article in each number like that, will aid the circulation of your paper more than two and forty sort of advertise-communications, from the greatest grower of strawberries, from the land of charlatantry. Many of us need plain, straight-forward remarks; as—"Never work your ground in wet weather if you can avoid it; as it makes it clod-like and compact, by forcing the air out." And—"Don't be afraid to clip hedges, or cut back young trees, when you are planting them." Such compact advice is worth more than a dozen catalogues of forty thousand kinds of fruit, &c.

There are many of us, "outside Barbarians," who would like to see you continue your notes about green-houses. We want practical information. I have been a reader of flower gardens and orchard directories, and all that matter, for years; and, save Mr. LONDON, I never could get hold of anything but what was too high learned. Foreign works are quoted, visits to very extensive green-houses—but stop, I am striking back handed; and that I leave to "An Old Digger." I am sincerely your friend, *A Cynic, in Miss. Feb., 1849.*

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SEVERE WINTER.—The past winter has been one of remarkable severity, the temperature of part of the month of February having been lower throughout the middle and eastern states, than for 13 years previously.

No winter since 1836 has been so severe upon half-hardy trees and plants. A considerable number of those which usually bear the winters here without suffering the least injury, have lost a good part of their last season's growth, and in some parts of the country even plum and peach trees have suffered much by the sudden thawing of the bark after severe frost, causing it to split open, breaking the sap vessels, killing the trees.

North of us, and in New-England, we learn that the germ of the peach bud is destroyed, so that there will be no crop of peaches in those districts this season. Indeed, we learn from a friend near Boston, that the blossom buds of the cherry also show, on being cut across, the dark centre which tells that they also have been injured by the excessive cold. The mercury* at Boston fell, we understand, to thirteen degrees below zero. Twelve degrees below 0 is sufficient to kill the heart of the peach blossom buds. In New-Jersey and Pennsylvania we believe the peach crop is uninjured.

In our own garden we find only about one bud in ten of peaches and apricots destroyed,—the remainder are sound and good; cherries are not at all injured. The mercury with us sunk to 10 degrees below 0. In some gardens within a few miles of us, however, in colder sites, the buds are nearly all killed.

We are glad to find that those two fine new

shrubs from China, which form so great an acquisition to our gardens,—the double Japan Spirea (*Spirea prunifolia* pl.) and the Chinese Wiegela, (*Wiegelia rosea*), have both stood the winter in the open border without the slightest protection.

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SEEDS AND GRAFTS BY MAIL.—A petition is circulating in the state of Maine praying Congress for such a modification of the post office laws as will enable those persons who are engaged in horticultural pursuits, or others, to transmit by mail seeds, grafts, and such other horticultural objects as may without inconvenience be forwarded in this manner, at a rate of postage not exceeding that of newspapers, provided they be in packages of not more than two ounces. It is evident that public good would be promoted by the proposed amendment, as it would present an opportunity for testing plants and fruits, useful for cultivation, in all soils and climates. We hope to see a petition drawn up and circulated in this state. *F. W. P., Westchester Co., N. Y., March 9, 1849.*

This movement was, we think, first commenced by the Cincinnati Hort. Soc. But nothing was effected during the last session of Congress. We should be glad to see petitions sent in from all the horticultural societies next winter—as no doubt a modification of the postage laws will take place at the next session of Congress. In Great Britain seeds, grafts, and small plants are sent by mail to the great advantage and convenience of the whole kingdom, and there is no reason why the people should not give cultivators the same privilege here, since it would so manifestly be for the public good.—Ed.

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ANSWERS TO CORRESPONDENTS.

GRAPES. *W. H. S., (Toledo, O.)* The Black Hamburgh is *not* hardy in this climate, and requires covering. The Lenoir has fruited two years with us, and promises well—but we cannot speak of its merits for culture on a large scale. It is quite hardy, and is a good, small grape.

FLOWERING PLANTS. *An Amateur, (N. York.)* “*Beauty Supreme*” is the finest pink verbenas yet grown in this country; it flowers abundantly, and forms fine masses. “*Tom Thumb*” is much superior to the old scarlet geranium for masses, as its color is very vivid scarlet, and the plant, though not absolutely dwarf, as its name implies, is of compact habit, with good foliage. Tuberose will flower abundantly if you plant the roots in pots at once, and start them in a frame or hot-bed, and turn them out in the border about the 1st of June.—*William, (New-York.)* You will find the plants you wish at Thorburn’s. See advertisement.

FRUIT TREE MANURES. *C. S., (Newport, N. Y.)* The composts recommended in our leader of last month are intended not only for top-dressings, but also for enriching the soil when planting the trees. A barrow-full may be used to each

hole three or four feet in diameter. Mix it thoroughly with the soil.

LIME. *An Inquirer, (New-Haven.)* Never mix fresh slaked lime with fresh animal manure unless you wish to destroy part of the value of the latter. If you wish to apply both lime and manure, spread the manure and turn it under with a spade, and then apply lime as a *top-dressing*. It will find its way downward in the soil as fast as the tree requires it—and not so fast as to act upon the manure injuriously. Old, or *mild lime* may be used along with manure.

LAWNS. *B., (Philadelphia.)* If you are not in haste about your lawn, and economy is the object, a bushel of seed per acre will answer. But it will require a year’s growth to give a close turf, which might be obtained by more plentiful sowing, in two months. *Red-top*, (the “bent grass” of New-England,) makes the best lawn for this climate, and it makes a more beautiful lawn alone than with white clover—though the latter gives immediate effect, and helps to preserve the verdure in a very dry soil or season. Make the surface as smooth as possible before sowing the seed, and roll it with a heavy roller directly after. If you had only a small surface to sow, instead of several acres, we should recommend you to use from two to four bushels of seed per acre.

PRUNING. *A Canada Subscriber.* You may prune your hardy grape vines now. We have tried the experiment repeatedly of late, and have never been able to discover that *bleeding* injures spring-pruned vines in the least. Prune back the side shoots so as to leave only one or at most two buds of the last year’s growth.

GRAFTING. *C. S.* You may succeed perfectly well in grafting the fine plums on your wild plum stocks, but it will not change the habit of the improved sorts any further than adaptation to the soil is concerned. They will be just as liable to the attacks of the curculio.

SHRUBS.—*A Northern Reader.* You can plant no prettier shrub for masses than the upright (Tartarian) honeysuckles. They are beautiful in leaf, blossom, or berry, from April to December. The “*Dutchman’s pipe*” is a perfectly hardy, shrubby vine, and will grow in any good garden soil. It will cover a trellis twenty feet high. The European holly will stand the winters north of New-York only with protection from the sun in winter. Tree pæonias are quite hardy here, but must be covered in winter north of Albany.

VEGETABLES. *A Tyro, (Trenton, N. J.)* The red-solid celery is harder and keeps much better than the white, but is not so tender if eaten raw. There is no beet comparable to the *Bassano*, either for earliness or flavor. There is no melon for general culture superior in all respects to the small netted citron.

PENNSYLVANIA HORTICULTURAL SOCIETY.

The stated monthly meeting of this society occurred on Tuesday evening, March 29th, 1849,—the President in the chair.

The display of objects on this occasion far exceeded the usual monthly attractions, and was witnessed by a throng of the elite of the city, who appeared highly delighted with the spectacle. The president contributed, as is his wont, largely from his fine collection; and, as objects of the greatest interest, might be noticed his contribution of strawberries, comprising forty pots, of the following varieties: Hovey's and Keene's Seedlings, Buist's Prize. Buist's Early May, British Queen, Columbus, and Ohio Mammoth, in full crop, ripe, and temptingly luscious,—a credit to his gardener; also, an extensive collection of plants, in full bloom, among which was a new plant, sent from Mexico by Gen. Patterson, which does not appear to have been described; air plants, Rhododendrons, Camellias, Pelargoniums, etc. etc.; and a table of seedlings; twenty-four pots of Cinerarias; sixteen of Petunias; and twelve of Pansies: a beautiful design of cut flowers, of a pyramidal form, resting on a moss pedestal; also a handsome basket of select flowers.

Mr. Dundas's gardener presented a number of magnificent specimens of plants,—two very large Azaleas, white and purple, in profuse bloom, and fine Rhododendrons, from which were suspended several air plants; also a large moss vase of choice cut flowers.

Robert Buist exhibited a select collection of plants in flower,—Azaleas, Cineraria Seedlings of much beauty; four Seedling Rhododendrons, etc. etc.; and Porphyrocoma lanceolata, Forenia asiatica, and Spirea Reevesii, of recent introduction; Wigelia rosea, Spirea prunifolia, fl. pl.; Barnadesia rosea, *new*, and for the first time exhibited.

Peter Raabe, a fine table of Camellias, Azaleas, etc.: and three large pots of Hyacinths, grown in moss, in cone form, one of which contained more than one hundred bulbs in bloom, of all varieties of hue.

F. Lennig's gardener exhibited fine Camellias, Acacias, etc. etc.

John Lamberts' gardener, a choice collection of Camellias, Azaleas, Roses, etc.; and a handsome basket of cut flowers.

James McDowell, gardener to Miss Gratz, a collection of plants.

Peter Mackenzie exhibited a stand of cut Camellias, consisting of thirty-five of the most select varieties.

James Ritchie, cut Camellias; one of which was a new and distinct white variety, of fine form,—a seedling named Pierceii.

Of fruit, Thomas Hancock exhibited St. Germain pears and apples. John Perkins, five varieties of apples; and Joseph J. Hatch, apples—Wood's Greening.

Of vegetables, a fine display from the president's,—a collection raised under glass, comprising potatoes, cucumbers, mushrooms, asparagus, lettuce, etc. etc.

Pierce Butler's gardener, a great display of lettuce, radishes and cauliflowers.

Miss Gratz' gardener, a fine collection of forced specimens.

The committee for awarding premiums reported the following: The committee on plants and flowers beg leave to report that they found great difficulty in awarding

the premiums; there being so many fine specimens submitted.

They however have determined upon the following: For the best three Rhododendrons, to James Bisset, gardener to James Dundas. For the best three Azaleas, to James Bisset; for the second best do., to Maurice Finn, gardener to John Lambert; for the third best, to B. Daniels, gardener to C. Cope. For the best three hot-house plants, to James Bisset; for the second best, to B. Daniels. For the best three green-house plants, to B. Daniels; for the second best, to David Scott, gardener to Frederick Lennig. For the best collection of plants in pots, to B. Daniels; for the second best, to Maurice Finn; for the third best to Peter Raabe. For the best design of cut flowers, to James Bisset; for the second best, to B. Daniels. For the best basket of cut flowers, to Maurice Finn; for the second best basket, to B. Daniels. Special premiums of one dollar each, for collections of plants, to James Bisset, James McDowell and Peter Raabe; also, for a stand of Hyacinths, to Peter Raabe.

The committee notice a fine display of Camellia flowers, from the green-house of Peter Mackenzie. Also, a fine display of plants from Robert Buist; many of them new, and not for competition; and a beautiful specimen of the Rhododendron Marryati; and a fine display of Petunias and Cinerarias, from the collection of Mr. Cope. Also a cut specimen of a Camellia J. Pierceii,—a new variety, shown by James Ritchie.

The committee on fruit report that they have awarded the following premiums, viz: For the best pears, to Thomas Hancock. For the best apples, five varieties, to John Perkins. And special premiums, of one dollar each, to Thomas Hancock and John Perkins. And one of five dollars, for a most splendid display of strawberries, all of the best varieties, in fine order and condition, displaying the plant, flower and fruit in the greatest perfection, to B. Daniels, gardener to the president.

The committee on vegetables report that they have awarded the following premiums, viz: For the best and most interesting display, by market gardeners, to Anthony Felten; for the second best do., to the same. For the best, by amateurs, to the gardener of Pierce Butler; for the second best do., to B. Daniels, gardener to C. Cope; for the third best do., to J. McDonald, gardener to Miss Gratz.

Dr. Herman Wendell, of Albany, presented papers of the seeds of a new Chinese vegetable, and of the Chinese oil plant, through the hands of Dr. Brinckle.

Ordered, That the thanks of the society be tendered therefor.

Messrs. Isaac M. Moss & Bro., the publishers, presented a copy of Walter Elder's "Cottage Garden of America." On motion,

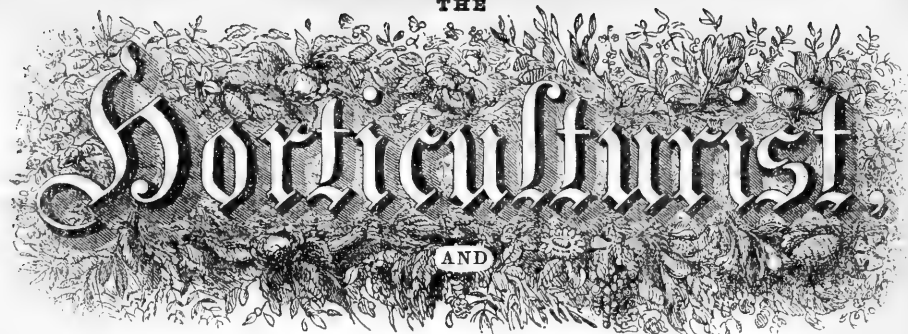
Ordered, That the thanks of the society be tendered to the donors.

The secretary submitted proposals for publishing, by subscription, the memorials of John Bartram and Humphrey Marshall, with notes and biographical sketches, by Wm. Darlington, M. D.; those of Jno. Bartram being dedicated to our society. On motion,

Ordered, That the work be recommended to the favorable consideration of the members of the society. Adjourned.

THOS. P. JAMES,

Rec. Secretary.



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No. 11.

MR. COLMAN, in his Agricultural Tour, remarks, that his observations abroad convinced him that the Americans are the most extravagant people in the world; and the truth of the remark is corroborated by the experience of every sensible traveller that returns from Europe. The much greater facility of getting money here, makes us more regardless of system in its expenditure; and the income of many an estate abroad, amounting to twenty thousand dollars, is expended with an exactness, and nicety of calculation, that would astonish persons in this country, who have only an income of twenty hundred dollars. Abroad, it is the study of those who have, how to save; or, in the case of spending, how to get the most for their money. At home, it seems to be the desire of everybody to get—and, having obtained wealth, to expend it in the most lavish and careless manner.

There are, again, many who wish to be economical in their disbursements, but find, in a country where labor is one of the dearest of commodities, that everything which is attained by the expenditure of labor, costs so much more than they had supposed, that moderate “improvements”—as we call all kinds of building and garden-

ing in this country—in a short time consume a handsome competence.

The fact, that in no country is labor better paid for than in ours, is one that has much to do with the success and progress of the country itself. Where the day-laborer is so poorly paid, that he must, of necessity, always be a day-laborer, it follows, inevitably, that the condition of the largest number of human beings in the state must remain nearly stationary. On the other hand, in a community where the industrious, prudent, and intelligent day-laborer can certainly rise to a more independent position, it is equally evident that the improvement of national character, and the increase of wealth, must go on rapidly together.

But, just in proportion to the ease with which men accumulate wealth, will they desire to spend it; and, in spending it, to obtain the utmost satisfaction which it can produce. Among the most rational modes of doing this, in the country, are building and gardening; and hence, every year, we find a greater number of our citizens endeavoring to realize the pleasures of country life.

Now *building* is sufficiently cheap with us. A man may build a *cottage orneé* for a few hundred dollars, which abroad would

cost a few thousands. But the moment he touches a spade to the ground, to plant a tree, or to level a hillock, that moment his farm is taxed three or four times as heavily as in Europe; and as he builds in a year, but "gardens" all his life, it is evident that his out-of-door expenses must be systemized, or economised, or he will find his income greatly the loser by it. Many a citizen, who has settled in the country with the greatest enthusiasm, has gone back to town in disgust at the unsuspected cost of country pleasures.

And yet, there are ways in which economy and satisfactory results may be combined in country life. There are always two ways of arriving at a result; and, in some cases, that mode least usually pursued is the better and more satisfactory one.

The price of the cheapest labor in the country generally, averages 80 cents to \$1 per day. Now we have no wish whatever to lower the price of labor; we would rather feel that, by-and-by, we could afford to pay even more. But we wish either to avoid unnecessary expenditure for labor in producing a certain result, or to arrive at some mode of insuring that the dollar a day, paid for labor, shall be fairly and well earned.

Four-fifths of all the gardening labor performed in the eastern and middle states is performed by Irish emigrants. Always accustomed to something of oppression on the part of landlords and employers, in their own country, it is not surprising that their old habits stick close to them here; and, as a class, they require far more *watching* to get a fair day's labor from them than many of our own people. On the other hand, there is no workman who is more stimulated by the consciousness of working on his own account than an Irishman. He will work stoutly and faithfully, from early to late, to accomplish a "job"

of his own seeking, or which he has fairly contracted for, and accomplish it in a third less time than if working by the day.

The deduction which experienced employers in the country draw from this, is, never to employ "rough hands," or persons whose ability and steadiness have not been well proved, by the day or month, but always by contract, piece or job. The saving to the employer is large; and the laborer, while he gets fairly paid, is induced, by a feeling of greater independence, or to sustain his own credit, to labor faithfully and without wasting the time of his employer.

We saw a striking illustration of this lately, in the case of two neighbors,—both planting extensive orchards, and requiring, therefore, a good deal of extra labor. One of them had all the holes for his trees dug by contract, of good size, and two spades deep, for six cents per hole. The other had it executed by the day, and by the same class of labor,—foreigners, newly arrived. We had the curiosity to ask a few questions, to ascertain the difference of cost in the two cases; and found, as we expected, that the cost in the day's work system was about ten cents per hole, or more than a third beyond what it cost by the job.

Now, whether a country place is large or small, there is always, in the course of the season, more or less *extra work* to be performed. The regular gardener, or workman, must generally be hired by the day or month; though we know instances of everything being done by contract. But all this extra work can, in almost all cases, be done by contract, at a price greatly below what it would otherwise cost. Trenching, subsoiling, preparing the ground for orchards or kitchen gardens, or even ploughing, and gathering crops, may be done very

much cheaper by contract than by day's labor.

In Germany, the whole family, including women and children, work in the gardens and vineyards; and they always do the same here when they have land in their own possession. Now in every garden, vineyard, or orchard, there is a great deal of light work, that may be as well performed by the younger members of such a family as by any others. Hence, we learn that the Germans, in the large vineyards now growing on the Ohio, are able to cultivate the grape more profitably than other persons; and hence, German families, accustomed to this kind of labor, may be employed by contract in doing certain kinds of horticultural labors, at a great saving to the employer.

Another mode of economising, in this kind of expenditure, is by the use of all possible *labor-saving machines*. One of our correspondents,—a practical gardener,—recommended, in our last number, that the kitchen garden, in this country, in places of any importance, should always be placed near the stables, to save trouble and time in carting manure; and should be so arranged as to allow the plough and cultivator to be used, instead of the spade and hoe. This is excellent and judicious advice, and exactly adapted to this country. In parts of Europe where garden labor can be had for 20 cents a day, the kitchen garden may properly be treated with such nicety that not only good vegetables, but something ornamental shall be attained by it. But here, where the pay is as much for one man's labor as that of five men's labor is worth in Germany, it is far better to cheapen the cost of vegetables, and pay for ornamental work where it is more needed.

So, too, with regard to every instance, where the more cheap and rapid working of

an improved machine, or implement, may be substituted for manual labor. In several of the largest country seats on the Hudson, where there is so great an extent of walks and carriage road, that several men would be employed almost constantly in keeping them in order, they are all cleaned of weeds in a day by the aid of the horse hoe for gravel walks, described in the appendix to our *Landscape Gardening*. In all such cases as these, the proprietor not only gets rid of the trouble and care of employing a large number of workmen, but of the annoyance of paying more than their labor is fairly worth for the purpose in question.

There are many modes of economising in the expenditures of a country place, which time, and the ingenuity of our countrymen will suggest, with more experience. But there is one which has frequently occurred to us, and which is so obvious that we are surprised that no one has adopted it. We mean the substitution, in country places of tolerable size, of fine *sheep*, for the scythe, in keeping the lawn in order.

No one now thinks of considering his place in any way ornamental, who does not keep his lawn well mown,—not once or twice a year, for grass, but once or twice a month, for “velvet.” This, to be sure, costs something; but, for general effect, the beauty of a good lawn and trees is so much greater than that of mere flowers, that no one, who values them rightly, would even think of paying dearly for the latter, and neglecting the former.

Now, half a dozen or more *sheep*, of some breed serviceable and ornamental, might be kept on a place properly arranged, so as to do the work of two mowers, always keeping the lawn close and short, and not only without expense, but possibly with some profit. No grass surface, except a shorn lawn, is neater than one cropped by

sheep; and, for a certain kind of country residence, where the picturesque or pastoral, rather than the studiously elegant, is desired, sheep would heighten the interest and beauty of the scene.

In order to use sheep in this way, the place should be so arranged that the flower garden and shrubbery shall be distinct from the lawn. In many cases in England, a small portion, directly round the house, is enclosed with a wire fence, woven in a

pretty pattern, (worth three or four shillings a yard.) This contains the flowers and shrubs, on the parlor side of the house, with a small portion of lawn dressed by the scythe. All the rest is fed by the sheep, which are folded regularly every night, to prevent accident from dogs. In this way, a beautiful lawn-like surface is maintained without the least annual outlay. We commend the practice for imitation in this country.

REMARKS ON PEARS FOR ORCHARD CULTURE.

BY WILLIAM REID, NEW-YORK.

WILLIAM'S BONCHRETIEN, OF BARTLETT. Every one that has been planting pears, for the last ten or fifteen years, has planted this sort more or less; and so far as my own observations have extended, they will be as well off as if they had planted some of the newer kinds, which have been very highly recommended. But let us begin at the beginning, and examine all the good and bad properties of this variety; for I have great doubts whether we have, among all the new sorts, anything, on the whole, nearly so valuable, and ripening at the same time of the year.

In the first place, it is a fine grower; it is a hardy tree; and it comes into bearing early; all of which are valuable properties to an orchardist. It is also of a large, uniform size, and, *at the season of its ripening here*, say from the last week in August to end of September, I may safely say that the Bartlett, for a market fruit, has no superior. I do not hesitate also to say, that an orchard of a few acres of this sort, where pears do well, will be worth as much as the whole produce of many a nice farm; and pears, now, can as well be brought

three to four hundred miles, as they could be, heretofore, a distance of fifty,—as railroads now intersect almost every section of country, and fruits arrive almost in the same condition as if they had been gathered fresh from the tree. But this is one of those pears that must be gathered a few days before they are fit for use; otherwise, if left on the tree until maturity, they will lose much of their good qualities, and be little better than some of our common fruits.

This pear succeeds best on the *pear stock*, at least, as far as my experience goes. I have several times tried it on the quince stock, but, as yet, have never been successful. It seems to grow tolerably well the first and second year, but afterwards stops, and has a very unhealthy appearance. However, this is one of the sorts that Mr. RIVERS says grows well on the quince; and Mr. R. ought to be good authority. If there are any cultivators who have trees of some age of this sort, worked on quince, I should feel greatly obliged by hearing their opinion through the Horticulturist on this point. The growth of trees, when young, is erect;

the wood has generally a brown appearance, but, in some soils, will be of a light yellow; the leaves incline to fold together; buds, on the year old wood, very flat; good specimens of fruit will frequently measure five inches in length, and from three to four in breadth, and always have a fine yellow appearance, sometimes tinged on one side with red.

DUCHESS D'ANGOULEME. This well known variety, taking into consideration all its qualities for orchard planting, and for profit, probably has very few superiors, unless it be the Onondaga, a fruit which is similar in size, and ripens at nearly the same time. But the Onondaga is of late introduction; and when we take into consideration the high character given to all new fruits, when first brought into notice, planters on a large scale will require it to be more generally tested, before planting it so extensively as older sorts. I am aware, that with cultivators in some localities, the d'Angouleme is not always considered high flavored; but when we take into consideration its large size and fine bearing properties, I doubt whether we have anything as yet superior. To be sure, there are many smaller sized pears, that are undoubtedly of superior flavor; yet, as I have previously stated, this sort has many valuable properties. It is very often high flavored, almost always of large size, and keeps well after gathering; so that it may be sent to market a great distance. For profit, it also has its merits. One acre of ground planted with this sort, in the vicinity of New-York, will yield a better remuneration to the planter than perhaps any other sort that can be selected. I would also state that I have a tree of this variety, on pear stock, planted in 1828, which has been in bearing for the last fifteen years, and I believe has never failed in producing a good crop. Some

seasons the pears have been high flavored; and again, when a large crop was left on the tree, they were not so good, but, at the same time, they would have brought a good price in market. I do not recollect anything very peculiar about the leaves or wood of this pear, as distinct from many other varieties. It is a remarkably fine, erect grower; the young wood, in some soils, will very often have a reddish brown appearance; the buds are also always very prominent, (that is, projecting out from the young shoots.) The size of this pear is about the same as the Bartlett; but it is often much larger, of an oblong shape, and very blunt at the stem, which is generally inserted in a cavity considerably sunk-en. This variety is particularly well adapted for growing on the quince stock. It ripens in October, and keeps sometimes until the latter part of November. [We cannot rate the d'Angouleme so high as an orchard pear. ED.]

LOUISE BONNE DE JERSEY has been in cultivation for the last ten or twelve years, and, I believe, is generally allowed to be a pear of superior excellence. However, this variety has, I think, in this country, been chiefly fruited on quince stocks, to which it seems well adapted,—producing fine, fair specimens of fruit, and of high flavor. Whether it will do as well on the pear stock, for orchard planting, will probably require a few more years to determine. I know that almost every person considers this pear one of the best. It certainly is so, on the quince stock, on which, as I remarked, the greater part of the fruit has been produced; but I believe, as yet, it has not been produced, in any quantity, on the pear stock. It does not appear to me always safe to judge of the qualities of fruits, for orchard planting, when they first come into bearing. I think we have abundant

evidence to the contrary; for if we look back, and examine the periodicals and works on fruits for the last ten years, what do they say? That a great many fruits are of superior quality, new, and very fine indeed; in short, some works would have you believe they described hardly *one* which is not first rate. But how many of these first rate sorts, within the last five years, have lost all of their high character they had then? Now, one would suppose if they had been first rate then, they would be so at the present day. White Doyenné and Bartlett were of that stamp then; they are equally good now.

It will probably be safest to defer giving an opinion on Louise Bonne de Jersey, as regards its qualities for the orchard, *on pear stocks*, until further trial, unless some person, who has had it planted ten or fifteen years, can give a decided answer. As regards its growth, it may be classed among the free growers, both on the pear and quince stocks. Wood of a dark olive appearance; shoots erect; fruit of a long, pyramidal shape, about four inches long, and two to three inches across, of a pale green colour, and tinged on one side with dull red. It ripens in the month of October.

WHITE DOYENNE. This old and well known variety is familiar to every person who knows anything about pears; and every person allows that, when in perfection, it has no superior. It is still grown extensively by nurserymen here, and seems to grow with as much vigor as it ever did, although considered by some to be "*run out*;" though some physiologists, long ago, would have it that its time had come, and, like all living things, it must give up the ghost, and give place to sorts of later origin. It does appear to be the case that this variety, and several others, do not here give us fair specimens of fruit; but, as far

as I am aware, the trees grow and flourish as well as they ever did; but the fruit of this variety about here, is certainly not as fair as it formerly was. This is not the case, however, to the north and west of New-York; for our markets bear abundant evidence to the contrary. As fine specimens come to the New-York market as ever did in former days; and the high prices, (four to six cents at retail each,) show the estimate still placed upon "*Virgalieus*" by the inhabitants of Gotham. There have been various reasons given to account for the cracking of this pear by many intelligent cultivators, but it seems to me without arriving at any very satisfactory results. I have always been of the opinion, that the cracking of the fruit is caused by a rust, or dark spots that get on the foliage in the early part of summer. The same discoloration spreads on the young fruit, and has the same effect as the mildew has on the gooseberry and grape. It is no doubt some kind of fungus or mildew that spreads over the tree. I have often observed, that wherever this black smut or rust gets on, the young pear ceases growing in that part; and as the skin grows hard, and does not expand with the rest of the pear, it either cracks open or causes an indentation on the fruit. Now, if we could find something to prevent this black smut or mildew on the foliage, I have no doubt but the Virgalieu pear would be just as good now, about New-York, as they ever were.* We have no variety, probably, more profitable than this sort, where it grows exempt from this fungus or rust. Both this variety and the *Gray Doyenné* succeed on the quince stock, and sometimes produce fine specimens, when they have entirely failed on the pear. This is a moderate grower in

* Wood ashes and bone dust will cure this rust, which is the outward symptom of a want of specific food in the soil. Ed.

the nursery rows. It forms its side branches very uniform, and almost horizontally, and forms a beautiful tree when grown as a dwarf, or for pyramidal training. Ripe from the middle of September to the latter part of November.

WASHINGTON is a seedling pear, of American origin, and of very high qualities; and had this been taken as a standard to judge by, there are many seedlings at the present day that would never have been figured, or brought into notice. The Washington pear, when in perfection, certainly has few superiors. It is beautiful and fair to look at; and it has a good, erect habit of growth, particularly on old trees. The wood has a light grey appearance, and the bark is very distinctly spotted with white dots. The fruit is of a size less than the White Doyenné, egg-shaped, of a fine yellow colour, with numerous gray russet spots. It is ripe, in the vicinity of New-York, about the last week in August. This sort does not succeed on the quince stock.

SURPASSE VIRGALIEU. This pear somewhat resembles the White Doyenné in its habit of growth. The side branches on young trees are, however, rather more upright. This sort, as far as I have been able to judge, from specimens grown on young trees, is a fine fruit, and a good deal like the old Virgalieu, but rather more round, with some few blotches of faint red. It is not liable to crack, like the latter sort. There are no doubt some good sized trees of this variety now in bearing, in various parts of the country. Will any person be so kind as to make the habits of such trees known, through the columns of the Horticulturist? This sort grows well on quince stocks.

FONDANTE D'AUTOMNE. This is another variety of the pear that is highly spoken of

by most cultivators, and, I believe, has generally proved excellent. It is a moderate grower, of rather an erect habit. The young wood, particularly on young trees, is of a yellow [?] appearance. The fruit is of moderate size, very melting, and good flavor. This pear succeeds well on the quince. Is there any person that has good sized trees of this variety, and will it be profitable for market?

BEURRE CAPIAUMONT is one of those pears whose fair appearance has recommended it as a profitable market fruit. So far as I have had a chance to judge of its qualities, I think it is one of those varieties than can be dispensed with. It is seldom or ever good to eat; and at the time it ripens, we have many other larger and far superior sorts. The wood is of a yellow colour; leaves pretty deeply serrated; fruit of ordinary size, tapering to a sharp point, and often with a bright red cheek. It grows on the quince stock.

MADELEINE is considered one of our best pears, ripening in July. It is a good strong grower. When young, the branches grow very erect, and it can generally be recognised at once among other pears in the orchard, by its very straight, upright appearance. The wood of this sort is of a dark colour, with some few light gray specks. The size of the fruit is small. It keeps but a short time, and does not yet seem to be plenty in our markets. It grows well on the quince stock.

EARLY CATHERINE. There are few early pears, ripening in July, which yield a *better remuneration* to the planter than this sort will. The trees grow to a large size, with long, pendant branches; and when they come into bearing, they produce very large crops. The Early Catherine is well known in the New-York and Philadelphia markets. I have often eaten this pear, and

thought it one of the best early pears grown. It is said, however, by some, not to be quite as good to the north of New-York; but, until we can find something better, this is a variety that I would recommend to those who are fond of early pears, though, like most of the July pears, it keeps only a few days, and ought to be gathered from the tree to have it in perfection. The wood of this sort is very dark, with long branches. It is a good grower, both on the pear and quince stock. The fruit is of a long pyramidal shape, and has a long crooked, fleshy stem. Size rather below medium; colour brownish russet, occasionally with a dull red cheek.

SECKEL. This well known pear, when grown on good thrifty trees, is always allowed to be of very superior quality. It has a peculiar flavor that very few pears possess. It seems, however, that the Seckel

pear is not always as fine as it used to be. On old trees, especially, they are very often small and without flavor; and for some years, in particular localities, such trees are liable to drop their leaves early before the fruit is ripe, which, in consequence, is without flavor—[for the want of proper culture. Ed.] Yet, the Seckel is a pear that will always be cultivated in private collections; but it is very likely to be superseded by some of the larger sorts, when *profit* is the object of the planter. This variety, although slow of growth when young, is, when grown to a good size, a tree of great beauty and perfect symmetry, and can never be mistaken in the orchard, or confounded with any other. I have only had the Seckel worked a few years on the quince stock. It seems, so far, to do pretty well. Yours, very respectfully,

WM. REID.

New-York, February, 1849.

ON THE CULTURE OF VINES IN POTS.

BY JAMES STEWART, WASHINGTON, D. C.

SIR—In your Horticulturist for September, there is an article on the culture of vines in pots, extracted from the London Gardeners' Chronicle, and written by Mr. Spencer, of Bowood Gardens. So far as the article treats on growing the plants, for producing fruit, it is excellent, and is the practice of all the noted grape-growers in England; but he does not *minutely* give the treatment they ought to receive, in some of the great essentials, to insure success.

The most important point, in the culture of vines in pots, is altogether overlooked, viz., *never use but one year old plants* for the purpose; and as soon as they have borne a crop, let them be thrown aside. This, with judicious stopping, is the *great secret* in

vine culture in pots. By raising your plants from single eyes, every season, and growing them as he describes, success is certain; but it must be regarded as most essential never to employ only young plants for the purpose. Older plants, treated as he points out, will certainly bear; but there is no comparison between them and the young plants,—the latter far surpassing the former in quantity and quality. This is the practice of Mr. GEORGE MILLS, gardener to the BARONESS DE ROTHSCHILD, Gunnersburg Park, near London; one of the best practical gardeners, and successful cultivators in England. Two years ago I was in England, and called on Mr. GEO. MILLS, (*being an old pupil of his,—having served my time*

under him;) and was astonished at the early crop of grapes, in pots. This was on the 27th of February, 1847. In one house I saw, plunged in a bed of tan, four hundred plants, bearing from five to eight perfect bunches *each*, all ripened in the most perfect manner. Some of them had been already cut for the table. These plants were introduced on the 25th of October, and subjected to a slight fire heat on the 1st of November, and then treated as is the usual practice of all good cultivators,—never allowing the hygrometer to ascend above 78; for if this amount of moisture is not maintained, you will be subjected to all such evils as red spider, thrips, mildew, &c., with their attendant consequences. Even when open, warm water gutters are used, in conjunction with flues, that are not more than three inches in diameter. You cannot saturate the flues, walks, &c., too much, particularly in the night, and in bright sunny weather,—bearing in mind to regulate the day temperature, as to moisture, &c., according to the weather, by covering the gutters, in cloudy, damp weather, and the contrary in clear sunny days.

During my stay in London, I called on all the principal places where early forcing is carried on, viz., at the DUKE OF NORTHUMBERLAND'S; Mr. CARTON, gardener, Sion House, Isleworth; MARQUIS OF AILSA, St. Margaret's, do.; Mr. WILMOT, the great grower for Covent Garden market, do.; Mr. THOMPSON, do., Great Ealing; Mr. BREFFITT, of Barnes; Mr. STONE, Deptford; Mr. GEO. DODDS, gardener to Sir GEO. WARRENDER; Royal Gardens, Trogmore, under the superintendence of Mr. INGRAM; Mr. GIBSON, gardener to the queen dowager, Bushy Park; Mr. MALLISON, gardener to the king of the Belgians, Claremont; and a great many other places of the first note, in the vicinity of the great metropolis.

Although I saw some excellent crops of early grapes in pots, yet none could compare with the Gunnersburg Park crop of grapes.

If you should deem the following remarks worthy of perusal, you are at liberty to publish them. By observing the annexed routine, the cultivator will be amply rewarded by the generous vine.

RAISING THE PLANTS.—Choose the most prominent eyes; be careful that the wood is well ripened; cut them into eyes of about one and a half inch in length; insert them singly in pots four inches in diameter, and plunge them into a hot-bed. When the pot is full of roots, shift them into the fruiting pots; these should be from sixteen to eighteen inches diameter, or boxes of the same dimensions. Care must be taken to keep them as near the glass as circumstances will admit of. Train them up till they reach the height of three feet, then top them where the terminal bud breaks; let it grow two feet and top it again. Be particular when the terminal eye is again excited, not to stop it *closer* than within two or three eyes of the former place. This will now give a sufficient length of rod (or stalk) to produce twelve or fourteen bunches of fruit; select the best, and only retain six, which is much better than a greater quantity. If it is stopped back to one eye above the former stopping, you will be sure to excite the main eyes which are to produce the crop of fruit, and which would render the plant useless. Be careful to keep them free from all *laterals*; and a judicious management of stopping-in their growth is indispensably necessary, to insure prolific vines. Water with pure, soft rain water, if obtainable; and if well water has to be used, add one ounce of *nitrate of soda* to three gallons of water, and let it stand in the house till it attains the vinery

temperature. Guano, twice a week, should be also used,—a handful to a large water pot of about three or four gallons.

About the 10th of September, let them be removed to a north aspect, plunging them in tan or rotten leaves up to the rim of the pot. Let them remain here till the middle of October, when they should be pruned six inches lower than the second topping. Keep the pots as dry as possible, so as to superinduce a dormant state.

There they should remain till the first of November, and then be introduced into the house, if it is desired to have a ripe crop by the middle of February. If not required so soon, great care must be taken not to let the roots get frozen in winter; as in that case, failure is inevitable. They can be stored away in a cellar, stoke hole, or any other place free from frost; and if there should be no convenience of this kind, they might be covered over with dry leaves, to the depth of two feet and a half.

Vines that are intended to start early, will break much more regularly, and much stronger, if they are kept in the dark a short time previous to their being excited. When removed to the house, they should receive a good soaking of water, and a top-dressing of the soil recommended, with the addition of a fourth of dissolved bones, incorporated with it.

It must never be forgotten that the plants, during their whole growth, should enjoy as close a proximity to the glass as circumstances will permit.

DESCRIPTION OF A HOUSE, most suitable for vines in pots, particularly in regard to ripening the fruit in February and March: Small, low, sheltered houses, having an angle of not less than 55 degrees, are the best to employ for the purpose of growing early grapes, so as to have them ripe in February and March. A “*lesser an-*

gle” than this would not do; as the sun would not strike the house perpendicularly till later in the season, and the consequence would be, a great deficiency in flavor of the fruit. The size of the house must be determined according to the supply required; and persons could have them any length and width, to suit themselves, providing that they *adhere to the angle of 55 degrees*, as it is highly important to secure as much *sun light* as possible between the autumnal and vernal equinoxes. If the situation will admit of the ground being excavated to the depth of two or three feet, so much the better. Shutters should be provided for covering the house, in very severe weather.

MODE OF HEATING.—The best system of heating, to my mind, is a combination of *hot water*, in open gutters, the *flue*, and a circulation of atmospheric air, as on the so called *Polmaise system*, but which, in fact, was introduced into practice at Isleworth, at the MARQUIS OF AILSA’S, in 1838, by WM. PENN, horticultural builder, of Lewisham, Kent,—with only the difference, instead of a furnace or stove, hot-water pipes were substituted; still, the *principle* was the same. A good substantial brick flue should run parallel with the back wall, and about two feet distance from it, where the fire enters; and over the fire should be placed a small copper boiler, having a perfectly flat bottom. Open gutters should communicate with the boiler, for the water to circulate in; and they may run parallel with the flue, or rest on the top of it. Gutters of tin, (*well painted with red paint*,) or of copper, or iron, will answer well; they should be provided with covers, which should fit accurately, to confine all moisture, if not required. The whole now should be enclosed in an air chamber, having small sills let in, at the distance of four feet apart. They should be two feet square, and provided with shut-

ters, to be hung on hinges, so as to have ingress to cover or uncover the gutters, when required. At the end of the air chamber should be an opening, for the escape of the heated air. The top of the chamber may be covered with boards, and on it sufficient rotten leaves, or tan, to plunge the pots in. The height of the air chamber must be so regulated as to have a space of two feet and a half left between the glass and the top of the pots. A walk should go down the centre of the house; and if sunk twelve or fourteen inches, it will act as an air drain, to conduct the cold air over the fire, where it enters a small drain, projecting two feet into the walk, and communicating with the bottom of air chamber, where the fire enters, will give satisfaction; although it will act very well, if there is an opening twelve inches wide, left to communicate with the chamber, when the walk is upon a *perfect level* with bottom of the air chamber. There should be a drain communicating with the bottom of the air chamber and the external air, which should be provided with a slide, so as to supply fresh atmospheric air when required. This apparatus, for economy of fuel, simplicity, and efficiency, has no rival; as it also supplies a steady, safe, and mild bottom heat, by the same machinery as is required to heat the air of the interior of the house. To be complete, a cistern should run the whole length of the house, and be placed *inside*, and extend from the front wall to the walk, and three feet deep, at least. It may be built of brick, and cemented, or of lumber, and lined with zinc. No house should be without a good cistern, to be supplied from the roof, and of sufficient capacity to be adequate to the consumption of the house in the greatest drouth.

TRAINING.—The vines are to be trained down the rafters, twelve inches from the

glass. Each sash will accommodate two. By training them downwards, they will develope every bud, and break regularly down to the bottom of the pot; whereas, if trained up the rafter, in the usual way, they would break too vigorously at the terminal bud, which would rob the other eyes of a due supply of sap; consequently, they would remain inert, which would curtail the crop in a serious measure.

SOIL.—The soil that is best adapted to vine culture in pots, is a good hazel loam, not too stiff in texture, with plenty of turfy fibre in it, and a fourth of good decayed "*bog earth*," which has been frequently turned, and exposed to the action of a winter's frost. This bog earth abounds with the richest decomposed vegetable matter, and is found in most swamps. One pint of fine salt should be added to each bushel of soil, and the whole thoroughly incorporated together. In this soil they attain a degree of luxuriance seldom witnessed.

WATER.—Use pure, soft rain water, *if possible*; and if "*well*" water, mix nitrate of soda, as before directed, and guano twice a week.

TEMPERATURE.—Supposing the vines to be introduced on the first of November, the house should be kept very moist and "*close*," if the thermometer does not range higher than 60° Fahrenheit, in the day,—allowing it to sink to 40° at night. This treatment may be pursued for the first two weeks, then gradually increase the temperature with a corresponding amount of moisture, till it reaches 65° at night, and 75° in the day, till the first week in December. The shoots will now be six or seven inches in length, and the bunches well developed. Select six of the best, and disbud all the others; pinch off the shoots one joint beyond the bunch, *and keep them closely stopped*; increase the temperature

by day to 80°, and with bright sunshine, it may run up to 100° or 105°, with plenty of moisture,—allowing the night temperature to sink to 70°. When the vines come into bloom, keep up a high moist temperature, 95° in the day, with sun 100° to 105°. At this *critical time*, the night temperature may be increased 80° 82°. The grapes safely set, and when as large as mustard seed, thin out the berries; and to a practiced eye it can be done to a nicety, although many err in not taking a sufficient quantity out of the bunch. The day temperature may now be kept permanently at 85° to 90°; and with sun, it may rise to 100° 105°, with *plenty of moisture*,—allowing the night temperature to be fixed at the minimum of 75°. Always keep the vines closely stopped, and never use water to water them with, but such as is of the same temperature of the house. Never admit air through the sashes; let it come through the air chamber, and be thoroughly warmed before it enters the house.

With strict attention to these directions, the grapes will begin to colour in the first week in February; and the moment you perceive this, *withhold water from the pots*, unless absolutely necessary, and keep the gutters closed, and maintain a “*dry atmosphere*.” It will insure you colour and flavor in the highest degree; not to forget, now to admit as much fresh air as you possibly can. From the time that the grapes are set, and swelling off, a large quantity of moisture is absolutely necessary. The leaves should present, every morning, small globules of water hanging on them,—the very picture of health, and proof of good management. Any one disposed to follow the above rules, will not be disappointed in obtaining good grapes from vines in pots,—always keeping in view two *prime essentials* in vine culture, viz., a large supply of

atmospheric moisture, and a fall of night temperature. Where a deviation from these rules is made, a miserable, small, badly coloured, and worse flavored fruit is the result.

This article, if it cannot boast of being written in a style like that of some of your correspondents, with a great many flourishes, is at least a *practical article*, and is the practice which has been very successful, for the last fifteen years, with Mr. MILLS, at Gunnersburg Park. I have also had the same success myself, as a reference to the Transactions of the Norfolk and Norwich, and Cambridgeshire Horticultural Societies will attest; the two first provincial societies, of the kind, in England.

And last, but not least, I have also been successful at the London Horticultural Society, when in competition with the *renowned* ROBERTS, then gardener to MATTHEW WILSON, Esq., Eshton Hall, near Skipton, Yorkshire, and now of Raby Castle, one of the best, if not the very best grape-grower in England. By referring to the 4th vol. of the Gardeners' Chronicle, Professor LINDLEY'S remarks will be seen. Perhaps it may be asked why I do not practice this system here? My answer is this; fortune has never favored me with a chance of so doing. The account given in Paxton's Horticultural Register, by Mr. I. DOUGAL, of the success of Mr. MEARNS, of Welbeck, of Mr. STAFFORD and others, of vine-growing in pots, must be received with due caution; as I can unhesitatingly state, on my own personal knowledge, that no such wonderful results, as those chronicled, were ever attained. As I lived under Mr. MEARNS, at Welbeck, when he was introducing the coiling system into notice, I have a right to know, that too high a colouring has been given to its merits. When I lived with Mr. MOFFAT, gardener

to the DUKE OF NEWCASTLE, at Clumber Park, as foreman of the forcing department, I used to visit Welbeck, Willersley, Chatsworth, Shobdon Court, and other places, where vine culture in pots was carried on systematically, and can assure Mr. Dougal that, although that mode is successful in a high degree, yet amateurs, and practical gardeners, have been led to expect too much from it, particularly as detailed in Mearns's Treatise on Vines in Pots. The system of Mr. PATRICK FLANNIGAN, late gardener to Sir T. HARE, Stow Hall, Norfolk, for the production of early grapes, I should decidedly recommend, in preference to Pot Culture. When houses are established on his plan, they have the merit of answering, equally well, as the pot system; and being permanent, vineries now exist at the above mentioned place which were planted 30 years since by the late P. FLANNIGAN, and are still producing *splendid crops* of fruit, and ripening them in March. In the eastern counties of England, this plan is universally followed, particularly at the Bracondale horticultural establishment of Mr. BELL, the most extensive grape cultivator in Great Britain, where tons of the finest fruit is produced, and a supply all the year is kept up.

Should this meet with your approval, I may, at some other time, give an outline of the above method; but perhaps something like it may be detailed in Mr. ALLEN's treatise, that you have noticed, which I have not had the pleasure of seeing.

The following varieties I am inclined to recommend, as most suitable for pot culture, after having tested all the varieties extant, with the exception of what may have made their appearance in the last four years, viz: *Chasselas Precocé*, *Royal Muscadine*, *Black Hamburgh*, *Black Damascus*, (true,) *Black Prince*, "*Clay Hall Seedling*,"

(half the berry white, half black,—this is a superb grape;) *New Dutch Sweet Water*, *Cambridge Botanic Garden*, and *Grove End Sweet Water*. The Frontignans—Black, White, and Grizzly, do very well. Last, but not least, let me say a word of the "*Cochin China*." This grape was introduced into England by Sir OUSELY GORE, Bart, British ambassador to the Persian court at Ispahan, by whom it was sent to the EARL OF EGREMONT, at Petworth House, in Sussex. Two years ago, it was only grown at Petworth, Lord Wharcliffe's, Wortley Hall, Yorkshire, and at Stradsett Park, the seat of WM. BAGGE, Esq., M. P., Norfolk. It was not in the possession of any one else, not even in that of the London Horticultural Society, in whose Catalogue the Cochin China is described as a black grape; whereas, this is a white one, and, when fully ripe, it assumes a beautiful amber colour. It has a long bunch, well shouldered up; the berry is of a long oval shape; the flavor is of first quality. The Cochin China, in short, is one of the earliest grapes known, and as prolific and hardy as a Black Hamburgh, if not more so. It sets well, in a very low temperature, where the Black Hamburgh will not; and when it comes to be known, it will become as universal a favorite as the Black Hamburgh now is. This new variety is now in the hands of Mr. JOHN SMITH, nurseryman, 5th and Buttonwood-street, Philadelphia, and one of the best "practical demonstrators" of vine culture in the United States; as was exemplified by him, when gardener to the late NICHOLAS BIDDLE, Esq., Andalusia, Bucks county, Pa. Mr. S. will have it in bearing year after next, *permanently*. Last year he fruited a plant in a pot, to test it, and was so well satisfied of its superiority, that he inarched it on a fine vine of the Zinfindal variety. This plant stood in

a house, occupied by roses, where no fire heat was applied, and ripened its fruit by the 2d of July. Mr. SMITH will not offer plants for sale until the vine inarched comes into bearing; then purchasers can have ocular demonstration as to its merits. The above vine that he has possession of, I know to be *genuine*, having introduced it myself from Stradsett Park, in the spring of 1847. As I conducted the gardens at Stradsett Park for six years, previous to my coming to this country, I can confidently speak of its good qualities; and my (then) employer, Wm. BAGGE, Esq., M. P., who is a first rate judge of good fruit, used to say that it ranked next to the *Muscat of Alexandria*, and was the second grape in cultivation. Mr. JOSEPH HARRISON sent a plant of this variety to Stradsett, from Petworth, in 1839,

being one of the first plants propagated from the original.

Having extended this article to a much greater length than I intended, I must crave your indulgence for encroaching so much upon your valuable pages. In conclusion, I would recommend not another variety to be added for pot culture; and to have the very best, I would repeat, use *Black Ham-burgh*, *Black Prince*, *Chasselas Precoce*, (true;) and, when obtainable, *Cochin China*, and *Clay Hall Seedling*.

The first opportunity I have, I will give you a description of the *Clay Hall Seedling* grape, and how it originated. And now, hoping to see vine culture advance rapidly, both in and out of doors, I remain, sir, yours truly,

JAMES STEWART.

Washington, D. C., Feb. 14, 1849.

PRODUCTIVE FAMILY GARDENING.

[FROM THE LONDON HORT. MAGAZINE.]

THE great secret of getting rich is to make the most of what we have; and whether this applies to money, to time, or to land, it is the same. You may almost tell what a man is by the appearance of his garden. Does he make the most of his ground? then there is some hope he is prudent. Does he make the most of his labor? he will rarely want. We do not mean that such men are never unfortunate, that they have not their troubles and trials like other men; but under every kind of visitation such men are better prepared, and therefore suffer less than careless reckless persons. In a garden no rod of ground should be ever idle. If a man who is naturally lazy has not kept his ground well cropped, he may have his excuses about laying fallow, ridging it in winter to mellow the soil, or leaving it rough that the frost may get into it; but there is no occasion for all this,—the soil need on no occasion to be at rest; change of work is a holiday to man, and change of crop is all that any ground needs; for no

two crops require the same kind of feeding, and consequently, by changing from one which requires high feeding of one kind to another that requires no feeding, or feeding of another sort, the ground continues at work without being exhausted. If ground has been used for carrots, parsnips, or beet-root, it may be immediately cropped with lettuces, or some crop which has no tap roots. Turnips, also, and potatoes, may be followed by peas. Very little attention (if that be properly devoted) will be necessary to prevent ground being wasted, or crops being out of place. When a garden is wanted for a family, and economy rather than variety is to be consulted, we are quite sure that asparagus, sea-kale, and similar expensive things, ought not to be undertaken. The first object is plenty, the second object is the choice of those subjects which last on the ground, or preserve well when taken off. Potatoes are a first consideration, onions, carrots, parsnips, and beet-root, are next, and Jerusalem arti-

chokes are not to be forgotten, because all these are capable of being stored for months after they are taken up; then, of those which last a long time on the ground, and afford a constant supply, scarlet beans, cabbages, onions, winter spinach, and savoy, are the most worthy of a cottager's attention; and brocoli (except the sprouting, which is a hardy useful vegetable,) cauliflowers, peas, and other subjects, which yield less produce on the same ground, by reason of the greater quantity of room they take, or the longer period of remaining on the ground, must be considered as luxuries. Everybody, with a garden, must consider the circumstances under which he has to cultivate it. If he has more ground than his family require for their supply, care must be taken to have the surplus of a useful and marketable nature, such as are always saleable, and if not bought on the ground, capable of being preserved for some time. All the articles mentioned in the first instance are of this nature. Potatoes, carrots, parsnips, beet-root, onions, and such like subjects, when ripened, will keep, and are always in request; whereas, to over-grow any perishable crop is unwise, because they will bring nothing, as when one person is overdone, most people are in the same predicament. There are some seasons in which it is better to sow for main crops, but in a general way it is better to have different sowings, and not too large, because all will frequently come in together, and so in a few days all be gone by. How frequently do we see a whole planting of cauliflowers come in and go by in a single week; they are unlike cabbages in this respect; for a cabbage is eatable from the time it has four good leaves until it is hard and solid; hence, cabbage is the most useful of the green crops, and should be sown at all seasons, that there may be always some ready to plant out. Savoy is perhaps the most hardy of the good winter greens. Scotch kale may be an exception, for hardly any degree of frost will kill it. Brussels sprouts are an excellent green; but when the object is economy of ground, it is better to limit the crops to those which are most serviceable as food, or most saleable as a surplus. As a general rule, where ground

is an object, double culture is desirable, that is, the planting of one crop between the rows of another crop; sowing rows of spinach or peas, or planting rows of French beans, or lettuces or leeks, beet-root or parsnips, between rows of other subjects. The only good object to be attained by this is the saving, perhaps, of a month or something more occasionally by digging between the rows of a crop that may be not cleared off for a month or six weeks, and planting young stuff that will not be in its way till that time arrives, although it will be getting on pretty nearly as fast as if there was nothing there. When the other crop comes off, the digging of the ground on which they stood will let air into the soil, and greatly refresh the rising crop, whatever it may be. Another mode of economising the ground is to plant out some subjects at half distances. Cabbages, in the fall of the year, are adapted for this. If, for instance, they would cabbage well at two feet apart from row to row, and eighteen inches from plant to plant, put them in rows only one foot apart, and only nine inches from each other in the row: all through the winter, you may be pulling the alternate rows for greens and cabbage plants, and when you have removed the alternate rows you may begin to pull up the alternate plants; meanwhile the plants intended to cabbage have lost nothing, because before they are too thick those that are removed give ample room to the remainder to cabbage. Another mode of economising, is to sow radishes, spring onions, lettuces, &c., in the same quarters as the early potatoes, and they are cleared off for consumption or for planting out before the potatoes are inconvenienced, or grow enough to injure the other crops. Experience will always teach us the best mode of economising ground and labor; but some few general hints may be useful to the amateur and the cottager. There are many books in which there are directions for the garden operations every month in the year, but even the best of them are not explicit enough in respect to the quantities or proportions of ground to be sown or planted; but so much depends on the circumstances under which a garden is cultivated, the wants of the cultivator, and his command of labor, that

we hardly know how it could be defined, unless we take an ordinary garden required for an ordinary supply. There are not, however, two families alike in this particular: one family may not consume a peck of onions in a year, while another, no larger, may eat several bushels; under these circumstances (like the little work called *Gardening for the Million*), we recommend frequent sowing rather than large crops, and lay it down as a rule that the wants must regulate the supply. Productive gardening, therefore, may mean large produce, abundance of everything; but the intended application of the term is large produce *without waste*, and the way to secure this is to limit the quantity of perishable articles, and make all the abundance and surplus of some crop which is always saleable and not perishable,—that is, not perishable within the period of several weeks. We propose to direct briefly the cultivation of the various subjects desirable to a family, so as to make the most of the ground.

POTATOES.

The numerous writers on the cultivation of the potato differ as much in their plans as if they were advising upon as many different subjects. We have grown them upon every plan. The indifference of the root to many different modes of treatment, and its success occasionally under all, has made all men too careless. We set out with preferring whole tubers for sets, in preference to cut sets, when they can be got of the right size, and, when we can get whole sets, we like autumn planting better than spring. Whole sets should, on account of economy, be small, that is, about the size of a walnut in its green husk; those much smaller might prove weak, if much larger there would be waste. Whole tubers are less liable than cut ones to be damaged by wet or frost, but for winter planting, or rather for autumn planting, they should be a clear six inches under the surface, for which purpose the dibble must be thrust down eight inches. In selecting the place for potatoes, plant those intended to be early under a south wall or paling, or on a sloping southern aspect, using the Ash-leaf kidney, Soden's early Oxford, Riot's flour-ball, Alliway's early seedling,

and Looker's Oxonian, or any other of the well-known early kinds. Plant any of these a foot apart, in rows eighteen inches from each other. Plant in October. Between these rows there may be planted rows of cabbage plants, not more than six inches apart, to be pulled as greens as soon as they are large enough to eat, beginning by taking every other one the first time you go over them, and clearing them altogether the second time. When the potato plants are well up, let them be earthed, that is, the earth drawn up round their stems with a hoe; but although we mention October, the open weather from that time till May would be good, if the vegetation could be kept back; for the instant a potato begins to shoot the eyes, it begins to take harm. Common sense dictates that the instant the eyes begin to swell the tuber ought to be in the ground; for this reason, seed potatoes ought never to be pitted, but when taken up they should be dried on the surface of the ground, or what is called greened. This process thickens the skin, evaporates a portion of the moisture, and adapts them for keeping, though it totally spoils them for eating. They ought then to be kept in a dry, cool place until the period for planting arrives. Suppose them disinclined to grow, and the eyes not to start even till late in the spring, they would be just as well planted the last day as the first; but we repeat that the instant they begin to grow (before planting,) they begin to lose quality. Presuming large potatoes alone can be had for seed, the necessity of cutting them into smaller sets must be admitted; but equal care, indeed greater rather than less care, must be taken to cut and plant before they begin to grow. In a general way it may be observed that a potato has the eyes for growing chiefly on one half. Now if the potatoes to be cut are in good order, and not growing, one-half may be cut off for eating, the other, containing the eyes should be so cut as to have one strong eye on each shoot; some are more liberal, and have two, and in some kinds of potatoes the eyes sit so close that you are obliged to have more. These cuts should be spread out to dry before they are planted; a little lime sifted over them, so as to dust them all, is desirable.

The planting may be entirely regulated by the disposition to grow. It may be sufficient to say here that when a potato is in the ground it is gaining strength as it grows, but while it is out of the ground it is losing. It may also be observed that potato planting is good so long as potato sets that have not begun to grow can be procured. The various modes of planting depends on the quantity of ground, the rate of labor, and the quality of the soil. The following practices are common in different localities:

1. Trenches one spit deep are dug, and the soil thrown on one side; the trenches are half filled with stable dung, the sets placed on the dung, and the soil placed on the top, forming a complete ridge, under which the potatoes soon vegetate and often yield heavy crops; but in general the best potatoes for eating are those grown on undug land, which does not yield so much.

2. Dung is placed on the land and dug in, and the sets are dibbled in from four to six inches below the surface; in this case the soil should always be pressed on the tuber, that it may lie solid on the ground, for if this be carelessly attempted, one half the sets, being dropped into a hole that a lump of soil may stop up half way, would be left without any soil surrounding them: this cannot but be injurious, therefore we cannot be too particular in seeing that the soil above is bruised and lightly pressed, so as to surround the set.

3. Where there is much land, furrows are ploughed, the potatoes dropped into them, and ploughing the next furrow covers them up. In this case, the second furrow is not used, as it would be too near for the rows, but the third furrow fills the second, and is used for the sets, the fourth covers them in, and so on, the whole ground being thus well stirred. If such land is to be dunged, the dressing is spread over the surface and ploughed in.

4. After digging and, if necessary, dressing the ground, the sets are laid in rows of the proper distance, and earth is taken from between the rows and thrown on the sets.

A crop of very early potatoes may be had, by digging the ground along the foot of a south wall, placing the sets a foot apart, and about six inches from it, and

then take earth from the front and throw on them so as to form a sloping bank, and when the plants come up, earth them up on the outside. This may be a small crop, because it is generally dry, but it comes early in proportion, and always of fine flavor. The late potatoes ought not to be planted late, that is, the sets must not have grown out before planting, and the distance for the late ones ought to be two feet, and the very large ones two feet six from row to row. Potatoes are ripe when the haulm decays. Regent's, Forty-fold, York red, Ne plus ultra kidney, Champion, Red kidney, are good sorts for main crops.

CARROTS, PARSNIPS, AND BEET-ROOT.

Next to potatoes, which are food for months, these three vegetables are the most useful. They are not only good with almost every kind of meat, but they are always saleable in any quantity; all grounds are not suitable, for they require fifteen inches of good rich light soil, free from gravel and stones. The soil should be trenched and well broken; beds of four feet wide, with one foot alleys between them, are the most handy for all three, and the seed should be very thinly sown over them; when the plants are up, they should be hoed to leave them eight or nine inches apart, nor should a single weed be allowed to grow. The first hoeing may not do this effectually, but the second, with the help of the hand occasionally, will accomplish it. These crops are valuable in all families, and, besides using them as soon as they are large enough, they may be stored as soon as they are ripe, and, with care, keep through the winter. The early carrots to be drawn and eaten as soon as they are of sufficient size, should be sown in February and March, the main crop the latter end of April; the best for the former is the Early horn and its varieties; the best for the late is the Altringham. For storing they ought not to be taken up until the foliage turns yellow.

ONIONS.

This is one of the most useful of vegetables, and deserves especial attention; like the previously mentioned crops, they keep a long while if well ripened, and the principal art in their culture is to well dress

the ground ; well decomposed night soil, a good two inch thickness all over the soil, forked into and well mixed with the top six inches of mould, will be found an excellent dressing ; but it must be well decomposed, or it will be too strong. The surface should be well levelled, the lumps well bruised, and the seeds sown thinly and equally over the bed ; this should be rolled in or trodden in solid, and raked smooth and even. The beds, like those of all crops sown broad-cast, ought to be four feet wide, with alleys of one foot. The month for sowing for a main crop is March, quite the beginning ; when they are up they should be hoed out, so as to leave them six inches apart, and in a week or two a second hoeing will be found necessary ; as the onions grow there may be found some close to each other—two in a place instead of one. These should be drawn by hand, so as to leave only one, and they must be kept clear of weeds all through their growth. When the period for taking up approaches, and the bulbs have swelled nearly as much as they will, the market gardeners make a practice of breaking down the foliage, under an impression that to keep on growing would exhaust the onion, and that stopping the growth of the leaves by breaking the necks throws all the strength into the bulb ; we venture to affirm that this is a mistake, the breaking down of the leaves can be of no service ; they, like all other plants, receive one kind of nourishment from their foliage, another from the root, and unless all goes on harmoniously, things cannot be at their best. However, when the foliage begins to turn yellow the bulbs are ripe, and may be lifted and left on the surface of the ground to dry out some of their moisture ; they should be preserved in a cool dry airy place. The sowing of earlier crops and later ones for present use may always be done where something else is growing, such as between lettuces that are planted out, or any warm border or corner, or in frames ; they do not come under our definition of productive garden, but rather among the luxuries than otherwise. The sorts best adapted are the Deptford, white Spanish, Tripoli, and Portugal ; all these keep well and grow to a useful size.

JERUSALEM ARTICHOKE.

The value of this root was, perhaps, hardly known by a large portion of the public until the scarcity of the potato rendered all vegetables available ; as a substitute it is very poor, but as a vegetable capable of being dressed many ways, and requiring very different treatment in cooking from the potato, it is worth a place, because it is preserved as easily as any vegetable in store all the winter, and can be made available. It is chiefly used in stews, alone or with other vegetables. The culture is very easy ; the haulm grows six feet high, therefore requires room and support. The best place is along the back of a border, or next to north or east palings and hedges. One row is found prolific, but as the uncouthness of this crop is against it, most people who cultivate it only have a large patch in the worst part of the garden, so that neither sun nor air can get to the roots. They are mostly left for years, the tubers becoming numerous and small. If there is to be a second row, there ought not to be less than a yard between the rows ; plant them like potatoes, and dig up the crop annually ; and keep it clean ; take out every tuber, and, at the proper time, plant them again.

TURNIPS.

This is one of those useful vegetables that can be enjoyed with almost everything. In field culture it is precarious, but in garden quantities it is very manageable. They may be sown every month from February to September, and for families using quantities it is better to sow every month. They should be sown broad-cast in four feet wide beds, and as they get four rough leaves they should be hoed out six inches apart, and be cleared of weeds. They may require several hoeings, and a succession of crops for those who consume many will be desirable, but regard should be had to the probable supply of other vegetables when these are likely to come in for eating, and this, with the quantity likely to be wanted, must always guide these comparatively perishable crops ; for turnips are not so well stored as carrots, parsnips, or beet-root ; but no vegetable can be more wholesome than the turnip, and so that they be not oversown they are really good. The new

early stone, the Dutch, and the Maltese yellow, are the best for culinary purposes. The best month for sowing a principal crop is June, but if showery weather come in July, that is a good month.

CABBAGES.

Of all the green crops this is the most valuable; it may be sown and planted out, if the weather be open, every month in the year; it stands almost any frost. It is eatable from the time it is large enough to handle until it has acquired a hard close heart. It is a crop to put on every bit of otherwise idle ground; it can be planted between rows of anything and everything, either to be eaten as greens when large enough, or left to cabbage on the coming off of other crops. They should be sown thickish on a seed-bed in January, and every week there should be a lot put out, three inches apart, to strengthen for planting out. The sowings should be repeated every month till August, for a constant succession of plants is everything. There need not, however, be large quantities sown each time; the quantity must be regulated by the wants. Nor is the use of this excellent vegetable over when the full grown cabbage is cut, for the sprouts which follow are equally good. Planted out to cabbage, they should be eighteen inches apart in the rows, and the rows two feet asunder. When the best part of the cabbage is cut, other crops may be planted between the rows, the ground being first dug, and the stumps may be all taken up and be planted close together in some otherwise useless spot and yield a mass of greens when scarcely anything else is to be had. The seed is but little object; sowing, therefore, to provide at all times plants to put out is a necessary precaution. The best sorts are new Early nonsuch, Wheeler's imperial, Sprotsborough, Nonpareil, and Early York; the Battersea is not to be despised, though it grows a large size and wants plenty of room.

SCOTCH KALE, BRUSSELS SPROUTS, SAVOYS.

These are only so many different members of the same family, and may or may not be used. The savoy is the most useful, the Scotch kale the most hardy, but it is an inferior green to either a good savoy or cabbage. The savoy should be sown in

April for a general crop, and the Brussels sprout and kale at the same time. These may, when large enough, be planted, or rather pricked out, three inches apart, to strengthen previous to planting out in their final place. In doing this the strongest plants must be taken, and every few days, as others get large enough, they may be pricked out, so that the store-beds may have a succession of plants constantly coming in, large enough to plant out as they are wanted. They may be always planted out as other crops are cleared, when the ground is not required for a different purpose.

RED CABBAGE.

Few people know the worth of this, except for its use as a pickle, but a moment's consideration will convince any thinking person that the immense number brought to market can never be consumed for that alone. It is used raw as a salad, and is excellent. When grown well, too, and cut at the right time, the red cabbage will store the best part of the winter, merely losing two or three of the outer leaves. As a salad it is economical and capable of being eaten by itself, and only requires to be cut into the thinnest possible shreds. The seed of the red cabbage may be sown in August, so as to get strong enough to stand the winter in the store-beds, where they are to be pricked out six inches apart. They may be planted out in February or March to their final destination, two feet apart one way and eighteen inches the other; spinach may be sown in drills between the rows, and will come off before the cabbages get large enough to occupy the room themselves. Seed may also be sown in small quantities in January in a frame or among the radishes, to be protected with litter from frost, and they will succeed from sowings any time during the period from January to August. When they have established themselves after final planting out and begun to grow, the earth should be drawn up to their stems, and they may remain in the ground until they are hard and solid, for in that state they will keep for months.

SCARLET BEAN.

This is the poor man's luxury; for besides growing up against palings, or in almost any corner of the garden, or as a

blind, and the plant from its peculiarity forming a good fence or hedge to separate any two departments of the garden, it is very prolific, and can hardly be said to leave off growing and bearing until the frost cuts it off. Again, the beans are allowed to grow to a size that renders the yield considerable, and the larger they are, the better they eat, until they get old and stringy. The seed should be sown in April, and the following are the different modes of planting them:—three in a patch, at a distance of three feet from patch to patch, or singly in rows a foot apart. In the first, poles or strong branches are driven into the ground at each patch; in the other they may be trained up bean sticks, placed along the row, or poles may be placed eight or ten feet apart and a line fastened along the tops, from which single lines may be led to each individual bean, or if against a north wall or paling, nails may be driven along the top, from which strings may be fastened in lengths to each plant. When they begin to bear, they should be frequently looked over, and all that are large enough, be picked for use, because they grow rapidly, and so long as they will break short in two pieces without being stringy, they are eatable. If a succession is desirable, sow again in May, June and July. Another, and if the ground be limited, a more advantageous way of growing them, is to sow the seed in a patch, in two or three barrows of dung for the sake of slight bottom heat, putting about six inches of mould for them to grow in, and when, about the middle of May, the weather looks settled, plant them out carefully without losing any of the fibres, and place the sticks, or poles, or string to them as soon as they are out.

HARICOT BEAN.

As a winter store, a few rows of the large white kidney or haricot bean may be sown at the end of April, and allowed to go to seed altogether, the entire crop to be used for stewing in winter. They require rich ground, that is to say, soil which has some heart in it; but after earthing up they require little or no care till they are fit to gather in. [The Tampico, or "Turtle Soup bean," is one of the most valuable of all bush beans, yielding an abundant crop;

excellent, either as string beans or for soup. ED. HORT.]

CELERY.

Although not always the most economical way of disposing of ground, if celery be grown in the ordinary way, a piece should always be spared for a supply for soups; celery for this purpose may be sown in a warm border in February, and as soon as it is large enough to prick out, it should be put two or three inches apart, only in a bit of good rich soil, to grow into strength. When it has advanced so as to stand the removal well, it may be planted in the common surface in rows three feet apart, so that any crop that comes off pretty early may be planted between. As the celery advances in growth, draw the earth up the stems, and continue this as long as it is in the ground. It will be found quite as useful in soup as if it had been grown in the trenches, and with not a tenth part of the trouble; and in time it will be large enough to eat as salad. The only thing it requires is constantly earthing up as it advances; there will be a sufficient quantity blanched to make it eatable, but a few plants for soups are as necessary as onions, and as wholesome.

LEEK.

Perhaps, looking at the utility of this esculent, boiled, stewed, or in soup, there are few more useful vegetables, and it has the advantage of taking but little room; it may be planted anywhere; it can be used in an alternate row with almost anything, and not require more than a six inch extra allowance between the rows; or if they are planted in rows two feet apart, any crop you please may be planted between them, especially any kind of winter green. Sow the seed in a patch in February. When it comes up, keep it very clear of weeds. As soon as large enough, prick out six inches apart in a piece of well dressed ground, and when it has acquired good strength, plant nine inches apart in the row, and the rows two feet asunder for a crop between, or one foot asunder if no other crop is to be introduced; but lettuces may be planted in the alternate rows, and the alternation of crops looks well if nicely managed. It is as well to earth up leeks, as you would celery, that is, sufficient to

blanch about three inches or so of the plant. Boiled in salt and water till they are tender, and eaten with melted butter like asparagus or sea-kale, the water being changed when half done, the leek is excellent, and when used in soup they should be boiled, cut into two inch lengths, and used in plenty by stewing them afterwards with the soup itself. The leek is not sufficiently cultivated among cottagers; and some object to them on account of their very strong flavor, while boiling them and throwing the first water away just before they are quite done, renders them as mild as a Spanish onion; whereas, there are many advantages in their culture that should induce them to be adopted to a great extent, if not preferred for the purposes to which onions are generally devoted.

ASPARAGUS.

Here we are getting to something rather extravagant, but there is nothing but economy to prevent its culture, and our business is to show how easily it can be done if wanted. Trench a row of soil eighteen inches wide across or along any quarter of the garden that is open, put a good four inches thickness of dung between the lower and upper spits of earth and tread it in, then throw in the top spit, which should be of itself in good heart. In the centre of this trenched ground draw a line tight, and within a circle of six inches place half a dozen seeds every eighteen inches along the row; four feet from this, do another, and so occupy as much ground as you like with rows at these distances. The object of placing them at such a distance is to have crops between. This sowing to take place in February, March or April. When the seed vegetates, the place may be kept clear of weeds, and when it can be seen which of the plants take the lead, leave the strongest, two in a place, and keep them very clear from weeds. In the mean time the ground between these rows may be cropped with anything that may be required, so that there be room left for the young plants of asparagus to grow. When the haulm turns yellow it may be cut down, and in cropping the intermediate ground, care must be taken to avoid injuring the roots, which will be found near the

surface; a little soil may be hoed towards the stems, so as to have the effect of covering up the roots a little, as a sort of protection, and forming a slight ridge, that it may be seen where the rows are. The principal object is to keep clear of weeds. Cut down the haulm at the end of the growth, and slightly earth up, to keep the row conspicuous when there are no plants to show it, and avoid damaging it in minding the other crops. After the third year you may calculate on cutting, and the only way to do this with advantage, for your own eating, is to let the buds grow a good four inches above the surface, and then cut it even with the ground. All the trouble of forming beds, and earthing up eight or nine inches, is saved by doing without the long useless stem which market bundles have, and instead of being a troublesome thing, involving considerable labor, to form the beds every autumn, there is no more trouble than there would be with a cabbage crop. For family purposes the asparagus is better, the roots are less exhausted, the ground less interrupted or interfered with, and, in fact, the luxury is no more trouble than a crop of broad beans, or a row of scarlet runners. In cutting this vegetable, care must be taken to avoid injuring the root. On cutting down the stems after the first year's cutting for use, a good dressing of dung should be laid at top, and a little soil thrown on it: the immediate effect of this is beneficial, and it scarcely more than reinstates the soil, for it washes away from the roots, and in time would expose them altogether; but there is to be no professed earthing up to lengthen the buds as if they were for market, for that does away with the simplicity and economy of this mode of treating it, which is reducing its culture to the same trouble as almost any other vegetable, and the quantity eatable is nearly treble that which can be found in the marketed asparagus.

CAULIFLOWERS.

This highly esteemed vegetable is economically or extravagantly grown, according as it is required in or out of season. If sown in March, pricked out when large enough into a well dressed bed to gain strength, and planted out in its final place in June, there is no more trouble required

to grow cauliflowers than cabbages. It is only when sowing in frames and protecting under hand-glasses are resorted to, for the purpose of producing early maturity, that the thing becomes extravagant, because of the labor necessarily expended on it. Many vegetables are of the same nature; if we were content to have them in their natural season, they would cost us but little; but to obtain them out of season much labor and expense is frequently incurred. Sow, therefore, on a warm border in March. In April they will be large enough to prick out, three or four inches, or say six inches, apart; these will have attained such strength in June as to be planted out in their final destination in the garden, and come in well for use in the fall of the season. If you sow on a slight hot-bed in January, and when large enough prick them out in a frame, but without much heat, and bring them well forward by April and May to plant out, you may get them much earlier. If you desire to have plants to go through the winter, sow in August, prick out where they can be covered with a garden-light, and stand protected all winter; but the strongest may be planted out under hand-glasses, three or four under each glass. In this case, great care has to be taken about keeping the glasses down in cold weather, and during heavy falls, and taking them off altogether, or tilting them, in any mild weather. As they grow large enough to crowd each other under the glasses, take away the weakest, and plant them out in the open ground, leaving only one, or perhaps two plants, to complete their growth, under each hand-glass; as they show their flower the leaves should be bent down, to keep the sun off, that the colour may not be injured. Cauliflowers should be planted out as a general crop two feet apart one way, and eighteen inches the other; but under hand-glasses there must be room for the hand-glasses to be taken off and placed in the row when the plants are at their largest size. The best sorts are Walcheren, Asiatic, and Early.

BROCOLI.

Here is a varied and an excellent crop, and occasionally a cheap one. It is, however, one which no poor man ought to trust. Of the varieties, choose Grange's

early white, Chappel's cream, Somers's superb, Chappel's white Roman, Purple cape, White cape, and early sprouting. The latter is the most useful. From January to June this vegetable might be sown every month, pricked out six inches apart as soon as it is large enough, and planted when strong enough. In this way brocoli is obtained from various sowings and plantings all the latter part of the summer and through the autumn and winter, unless it be very untoward weather. The sprouting sort is a very delicious and economical vegetable; it eats well with anything, gives a good supply for a long period, and requires but little labor. The best season for sowing all the sorts is February and March, half each month. As soon as they have four rough leaves, prick them out in an open space, six inches apart, taking the strongest plants from the seed-bed each time; you will thus get several different seasons out of each sowing. As soon as they have attained the necessary strength, begin to plant some out, either between crops of other things that are coming off, or in quarters devoted to them; but we are always anxious, as a row of anything is off that will admit of being replaced, to get something on the ground. Brocoli thus put out in a moderate garden, as room is made by other things coming off, must come in well at some time or other, and if one season misses all cannot. As soon as the plants which are put out for good, begin to grow, the earth ought to be drawn to the roots, and after this, little or no care is necessary.

ENDIVE.

This is a hardy salad, and may be cultivated in small quantities with advantage, sown in April, May, and June, and planted out when large enough on a bank sloping to the south; it is a fine wholesome salad with beet-root and lettuce, or with red cabbage. When the plants are large enough these must be blanched by tying them up like lettuces, or by laying tiles or slates, or flat pieces of board, on them; one foot apart all over the bed would do for distance at planting out, and it is very little trouble.

SEA-KALE.

Another luxury; little or no trouble when

cultivated for its proper season, and only costly when forced. For instance, many acres are grown that are merely put out in rows and earthed up. When the sprouts come forward they break the earth on the surface, the cultivator then removes the earth low enough to enable him to cut off the shoots down clean to the crown of the plants. Here, as neither fire-heat nor dung is used, it cannot be said to cost much. The proper mode of cultivation is to sow the seed three or four in a spot, these spots being eighteen inches apart in the rows, and the rows three feet apart. When they have vegetated, keep the strongest and take away the others, which may be transplanted in continuation after the same plan, and, if carefully done, will not be much behind those that have not been disturbed. They may grow on for three seasons with nothing more than the earth drawn up to the roots, and being kept clear of weeds. Now if you have large flower-pots, or kale-pots, they may at Christmas be covered over the individual plants, and be surrounded by dung from the stable or leaves, the plants will shoot much sooner than if they were only earthed up; but the least trouble is to earth up the rows into a flat-topped bank by digging an eighteen-inch trench between the rows and putting the soil that comes out upon the plants, covering them eight inches. In the spring the plants begin to shoot, and when they break the surface it is known that the shoots are long enough for the purpose, and that they may be uncovered and cut, but those under the pots covered with dung or leaves will have been forward enough to cut weeks before. Sea-kale, however, is not an economical vegetable, because the ground, like an asparagus-bed, is occupied the year round for one crop. This can be in part counteracted by cropping between the rows as soon as the kale is cut, for the bank is then levelled, the plants allowed to grow till the autumn, and all this time lettuces may be planted out and got off the ground; or spinach, or a couple or three drills of turnips sowed directly the kale is done with, will come well into use before the plants need be earthed up again.

CUCUMBER AND VEGETABLE-MARROW.

If you can sow in a hot-bed a few seeds

of cucumber and gourds to use as vegetable-marrow, and have a spare place in a south border to plant them, the chances are that you get a good supply of both. Sow them in April; grow them singly in pots till the second week in June, stopping the shoots at the second joint; plant them out in June, and there will be a good recompense for your trouble. [No hot-bed is necessary in this climate. Sow the seeds in deep rich soil in the open ground. ED. HORT.] The vegetable-marrow must not be allowed to grow too large; they ought to be eaten before the seeds are formed: while young they are like marrow, but after a certain age they become a mere jelly, and when they lose their firmness and swell they are watery, faint, and unwholesome.

LETTUCE AND OTHER SALADS.

Lettuce, corn-salad, small salad, and other herbs for the same purposes, may be sown each month, but corn-salad is by far the most economical of all the small salads, because you keep picking from it the leaves, and they grow again continually. Lettuces, both the cos and the cabbage sorts, may be sown on a warm border in February, March, April, May, June, and July, and in frames, or with some protection, all the rest of the months. They may be watered and drawn out for planting according as they get strong enough, and ground is vacant. There is no season to regulate their growth any more than their consumption, but it may be taken as a general rule that the cabbage kinds are the most hardy, and do with least trouble all through winter, and that, as they want protection, even when sown in February, in an open border, the best way is to sow them with onions for pulling young, and with radishes to draw young, and the same litter that covers for one will cover for all. Lettuces ought to be planted out a foot apart in the row, and eighteen inches from row to row. Radishes, like other salads, may be sown every month, if the demand warrants its being done, but in the summer time so many things crowd in upon the gardener that he hardly knows what to be at, so that he ought well to study not only the most useful vegetables, but also those which are longest in perfection when once produced.

PEAS.

Here we have a keeping as well as a perishable stock. It is not the most desirable crop for persons of limited means, but it is to be taken into consideration that what are not eaten green are good dry; there is no reason why a man should not grow his peas for soup as well as his celery, and no dry peas can be better than those he saves and ripens himself. It is a general notion that peas are not split for soup and puddings, till they are too old to grow, and it may be readily supposed that what a man grows himself he can depend on. There is no difficulty in bruising peas, and new ones shall swell better, and taste better, than old ones. Peas, therefore, may be looked upon in the light of a double crop, if wanted, or a safe crop if saved all for harvest. Of the hundreds of varieties in cultivation, many have very equal claims; novelty may do something for a pea, and, of course, there are some which have both novelty and excellence to recommend them: we have found all the following to be good:—Cormack's Prince Albert, Shilling's early grotto, Flask's victory, Ward's incomparable or British Queen, Knight's improved dwarf green marrow, Groom's dwarf, Waite's Queen of the dwarfs, Girling's Danecroft early, and imperial. The Early frame, Charlton, and many others, are, however, still favorites. Peas may be sown from November to July every three weeks, but it is for a man to consider whether he ought to devote much or little ground to a crop which, if eaten green, is a luxury of some cost, and if saved dry may cost more than they could be purchased for. However, there is a great fault among pea-growers; they sow the seeds much thicker than they ought to be sown, and therefore waste a great deal. Peas ought to be sown in drills, and if there were half the quantity usually sown the crop would be heavier; when up above ground, earth ought to be drawn up to their stems; the soil bruised and closed about their roots, and brought up to a kind of bank on the cold side of them; sticks should be placed to them at the same time, and after this they only require to be kept clear of weeds, and in parching weather to have water.

RHUBARB.

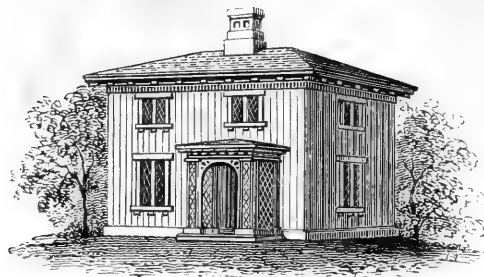
This has become so general a favorite from its wholesomeness and flavor, in seasons when fruit cannot be had, and is moreover so strongly recommended to families, that a portion of the garden ought to be devoted to a few good roots—a dozen will be found enough for a moderate family, and they ought to be two feet from each other every way. The ground should be well dressed, the plants young, the season autumn. They should be planted without bruising their roots, and they will do all the rest themselves. If wanted earlier in the spring than they will come naturally, put a box, or rather a wooden trough, two feet high and one foot diameter, over a plant, cover the open end that is uppermost with a flat tile or a proper cover, and surround the whole with dung or leaves; it will hasten the growth: or pot up a strong root or two and put them in a warm cellar, or a kitchen-cupboard, or a green-house, or any other place where the temperature is raised; but it is never so good as from the natural ground, grown in the natural way.

SPINACH.

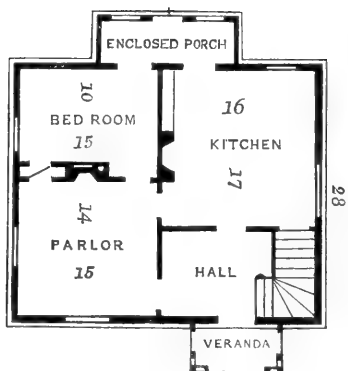
The winter spinach is the most useful and economical, and is as good in summer time as in winter. The difference between this and the round-leaved is, that the winter kind takes longer to perfect the plant and seed it than the round-leaved does, and, therefore, it is longer eatable. It is not pulled up as one-half the spring spinach is, but the leaves are picked off from time to time as they grow, and a good bed of spinach yields for a long time. The round-leaf spinach will be better for the same treatment, and looks much larger for it, but it is not so long in perfection. Spinach of either kind may be sowed in drills eighteen inches apart any season, but it is usual to sow the round-leaf from January to July, and the prickly, or winter, from August to October. If it comes up too thick, pick out some when they are large enough to eat, and thus thin it, when you can use the surplus.

GENERAL OBSERVATIONS ON GENERAL SUBJECTS.

Many other subjects might be mentioned under separate heads, but we have gone

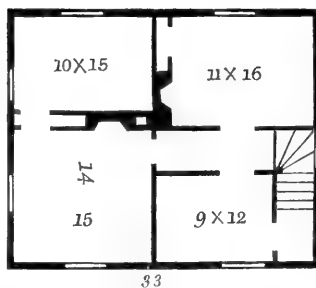


A SUBURBAN COTTAGE.



FIRST FLOOR.

20 FEET



CHAMBER FLOOR.

Hort: May, 1849.

through all that concerns those who wish their gardens to be usefully productive; we have not devoted a chapter to the herb bed because it is so very simple, and forms a subordinate part of the establishment, though highly useful. It is not very difficult to procure a plant or two of sage, mint, thyme, marjoram, and other herbs; and very little of these will do for a large family. Parsley is a more generally useful herb, and is raised from seed; any of the perennial herbs will tear to pieces and strike like weeds; and parsley should be sown twice or three times a year, and any root whose leaves are not double and curled, should be pulled up. There are many subjects in a garden that we have not mentioned: we have not touched on fruit; our sole object has been to treat of those things which are more or less necessities, or profitable stocks, and, although we have treated of several things that a man may cultivate as luxuries, no person with limited means ought to lose sight of the one great object of appropriating every rod to something that he can sell if he cannot eat it, or that he can

keep for a considerable time if he can neither sell nor eat it. These will be found to have been mentioned pretty nearly in the order of their importance, taking into the account their value as stock or their saleable nature as merchandise, for such, in truth, food as well as raiment is, and when a man can choose the stock he will produce, he ought to be doubly considerate how he misapplies a rod of his ground.

A gardener is none the better for wanting extravagant implements, but proper ones he ought to have, for being obliged to make shift with one thing for another is a sad loss of time. Hoe, rake, fork, spade, garden line, knife, good strong box-barrow, broom, basket, and dibble; all these things are necessary. There is also a proper way of keeping them; they need not be all in morocco cases and mahogany boxes, but at the same time we should like to see them taken somewhat more care of than our artist has bestowed on them. To be plain, a gardener, like a prudent housewife, should have a place for everything, and everything in its place, when not in use.

DESIGN FOR A SUBURBAN COTTAGE.

In our last number, we gave a design for a villa of the first class, in point of size and architectural style. The *FRONTISPIECE* to this month, shows a suburban cottage of very moderate size, intended to come within the means of those who have only a few hundred dollars to expend in a dwelling, who can afford little ornament, and who still desire to get something comfortable, and agreeable to the eye.

There is no effort at the ornamental in this design. It is simply getting the most convenient arrangement of the interior, in the most *compact* form, viz., that of a square. The little veranda, formed of lattice work, and intended for vines, is the only decided approach to the ornamental, though the mere projection of the rafters, gives the

roof something better than the usual commonplace character.

This design is intended to be constructed of wood, the weather boarding put on in the *vertical* manner, described in our first volume, and familiar to most of our readers.

The plan of the first floor shows a hall, kitchen, parlor and bed-room,—all, indeed, that a family, wishing this kind of cottage, need on the first floor, so snugly arranged that not a step need be lost in the working operations of the family. The entry or hall is larger than is usual in houses of this size; and the enclosed porch, or back entry, serves to shelter the back door in winter, and might, if preferred, be taken away altogether in summer.

The second story plan shows an upper

entry and four good bed-rooms. The chimney flues are all drawn into one stack in the attic, and the roof is covered with shingles. The first story is ten feet, the second nine feet high.

Our principal object in giving this plan,

is to show a convenient and compact mode of arranging the interior of a certain class of village or suburban dwellings, so as most to promote the comfort of those who build this class of cottages, and who have little time to plan for themselves.

HOW TO GROW EVERBLOOMING ROSES.

BY AN AMATEUR, NEW-YORK.

DEAR SIR—No doubt many of your readers, like myself, think there is nothing, in all the range of the flower-garden, so beautiful and so satisfactory as the everblooming rose. A plant that blooms all the spring, summer, and autumn, and whose blossoms are the perfection of beauty and fragrance, is indeed entitled to all the affection which lovers of flowers are likely to bestow on their greatest favorites.

But some of your readers, as well as myself, may, it is not unlikely, have noticed that in some soils these roses grow and bloom almost without care, while in others they are always poor, stunted little things.

I wish to say a few words about this difficulty in cultivating fine roses, especially as regards strong soils, and indeed all soils that are not very well drained and porous below.

In my own garden, the underlayer or substratum of which is a fat loam, these roses thrive very poorly, when planted out even in a rich border, if planted without preparation. They make a poor growth, and give but few flowers, instead of growing luxuriantly, and blooming abundantly.

It was some time before I could discover the reason of this. At last, an experienced rose-grower, to whom I complained, explained the difficulty, by saying—"what

is at the *bottom*? You can never grow roses unless they have a good drainage." A little further inquiry enabled me to discover, that he meant, that when there is a stiff loamy or clayey subsoil, so that the water does not pass off freely, the moment the roots of the rose touch this clay the plant stops growing.

Under his direction, I immediately prepared three or four circular beds for everblooming roses, by laying all the top soil on one side, and digging out and rejecting all the stiff subsoil. This made the hole two feet deep. I then filled it up with small stones six inches deep, and mixing with the good soil sufficient rotten manure and pieces of sod, chopped fine, to make a good mould eighteen inches deep. I planted the beds, so prepared, with the best Tea, China, and Bourbon Roses.

The result surpassed my expectations. Every plant grew, as I never before saw those everblooming roses grow,—as they never grew before in my soil,—and produced flowers such as I had never expected to see, both as regards size and beauty. This is now five years ago; and since that time, I have not planted a single fine rose without preparing proper *drainage* for it, and I have uniformly met with the same success. I therefore recommend the practice with confidence to all your readers

who wish to succeed in growing tender roses.

I should also add that, with this dry sub-soil, all tender roses are more hardy than when planted in the common way; and that even the Tea roses stand the winter here, in this way, with a slight covering in winter.

And now a word or two to beginners, respecting a nice selection of everblooming roses. I have had some years of experience in the matter, and venture to recommend the following sorts, as really beautiful, and deserving of general attention:

BOURBON ROSES. Souvenir de Malmaison, *pale blush*; Princesse Clementine, *violet crimson*; Mrs. Bosanquet, *waxy blush*; Pourpre Fafait, *crimson purple*; Madam Desprez, *bright rose*; Acidalie, *white*; Cor-

nice de Seine et Marne, *bright red*; Dumont de Courset, *dark crimson*; Hermosa, *pale rose*; Compte d'Eu, *bright red*.

TEA ROSES. Devoniensis, *large, cream colour*; Clara Sylvain, *pure white*; Goubault, *large rosy blush*; Josephine Walton, *pure white*; La Sylphide, *rosy buff*; Mansais, *buff and pink*; Princess Marie, *rosy pink*; Strombio, *rosy white*; Eliza Sauvage, *pale sulphur*.

NOISETTE ROSES. Aimée Vibert, *snow white*; Chromatella, *fine yellow*; Jaune Desprez, *rosy buff*; La Marque, *white*; Le Pactole, *pale sulphur*.

CHINA ROSES. Lady Warrenden, *pure white*; Madam Breon, *bright rose*; Eugene Beauharnois, *rich crimson*; Cels, *blush*; Agrippina, *deep crimson*. Yours, truly,

AN AMATEUR.

New-York, April, 1849.

ASIATIC, OR LARGE FLOWERED TORENIA.

[THE following account of a new plant, said to bear the most beautiful of all blue flowers, will interest our floricultural readers. It has just been introduced by some of our leading plant growers. Ed.]

To this pretty genus of plants we have recently had some accessions, which will become valuable ornaments of our gardens. The best, in every respect, is that of which an engraving is here introduced: nothing can exceed it in the richness and the softness of its colouring.

In noticing this plant on a former occasion, (*Annals of Horticulture*, ii. 553,) we took the opportunity of expressing a doubt whether the statement that the plant was an annual was strictly correct. The statement was made in the *Botanical Magazine*, where a beautiful figure of it was published last year. Nothing in the appearance of the plant, at the time our notice above referred to was written, would seem to warrant the belief that the plant was annual,



Fig. 55.—*Torenia Asiatica*.

and our further experience of it does but confirm our former supposition: hundreds of plants raised from cuttings last year,

along with calceolarias, cupheas, and similar sub-shrubby plants, have been preserved through the winter, and planted out into the flower garden; and the old plants which blossomed last season are now vigorous, and blossoming freely again. It was, moreover, said to be a stove plant; but this, too, is incorrect; for it has been preserved during winter in the temperature of a green-house, and has been grown and flowered well in such a situation. Moreover, experience has shown it to be a plant suitable for bedding out in flower gardens, though here, we presume, it will always be found to do best in the warmest situations, all other conditions being equal.

The plant is of diffuse branching habit, with quadrangular, flexuose stems, bearing opposite ovate, or ovate-lanceolate, coarsely serrated leaves, from the axils of which other branches, and towards the tips of the shoots numerous flowers, are produced; the flowers grow on separate stalks, but sometimes several—three or four—together, from the same axil; they are shaped something like the flowers of a mimulus,

only they are divided into four instead of five lobes, the lower of which, and the two side ones, each bear a large deep purple blotch, and the throat, or centre, is of the same colour; down the centre of the lower segment is a pale streak; the rest of the flower is a clear, soft, porcelain blue-lilac, of indescribable tint. It is a very free flowering plant, blooming throughout the summer and autumnal months.

Viewing the extensive range which it occupies in a wild state, one would be prepared to find it possessing much hardihood of constitution, even though it be East Indian. It is recorded as growing throughout Bengal, in Amboyna, Ceylon, Mergui, Chittagong, Sylhet, and in the Madras peninsula. It is also widely diffused in alpine regions, and hence our success in cultivating it in a low temperature.

The plant is easily cultivated in any light rich soil, and propagates with the utmost facility by means of cuttings. Probably its beautiful tint of colour will be best brought out and preserved by affording it some shade from intense sun-light.

IMPORTANT TO CULTIVATORS OF THE GRAPE.

THE necessity of studying the composition of the different fruit trees, in order to supply precisely the elements they need, to maintain them in the highest state of thrift and productiveness, is only every day more apparent. The failure of certain sorts in some soils, and their success in others, is no longer wholly a matter of mystery, since we know that upon the presence or absence of certain salts or minerals in the soil, the health and perfection of certain fruits largely depend; and since the facts are now well established, that soils robbed of potash and lime by long continued cropping, will no longer give good fruit, unless these substances are replaced, we are led to investigate, as closely as possible, the chemical composition of differ-

ent fruits, in order to apply precisely the necessary food, and no longer to work in the dark.

A good deal of attention has been attracted lately to an article bearing directly upon this subject, which has been read by M. PERSOZ before the *French Academy of Sciences*, Paris. We copy the following translations of it from a foreign journal, for the benefit of our readers.

It will be seen that M. PERSOZ goes farther than most cultivators. Recognising the well known fact, that the analysis of the *growing* parts of a plant show a chemical composition quite different from the analysis of the fruit and seed, he varies the special manures which he uses, so as at one time to assist most completely the produc-

tion of wood, and at another the production of fruit.

The following is the paper alluded to, which, it will be seen, relates chiefly to vineyard culture :

“The new process which I propose for cultivating the vine, inasmuch as it enables us to make use of half the land for growing nutritive plants, may, at first sight, appear to differ completely from the plans now adopted in vineyards. Such, however, is not the case ; and, as those who have studied the various methods adopted in different countries will see, several of the recommendations here made have already been followed in practice. I acknowledge this the more readily, as it enables me to appeal, as a proof of their usefulness, to results attained by long experience. In one respect, my plan differs from every other ; for I propose that all the vine stocks, in a certain space of ground, should be brought together in a trench, where, by one chemical action, the wood, and by another the fruit, may be induced to form. This I propose, in consequence of having, by direct experiment, satisfied myself that, of the manures which are fit for the culture of the vine, some seem exclusively for the increase of cells, i. e., of wood, and that others cause the development of the flower bud, (fruit or grape ;) and that the actions of these substances, instead of both going on at the same time, ought to be successive. By the application of these principles, the growth of the wood can be stopped at pleasure, while, by the ordinary methods, the same effects can only be produced by artificial and empirical means.

“When it is wished that wood should be developed, the vines [roots,] must be placed in a trench, and covered with three or four inches of earth, with which have been mixed, for every square yard of the surface

of the trench, 8 lbs. of pulverized bone, 4 lbs. of pieces of skin, leather, horns, tanners' refuse, etc., and $1\frac{1}{2}$ lb. of gypsum.

“When the wood is sufficiently forward, which will be in a year or two, according to circumstances, the roots must be supplied with salts of potash, in order that the fruit may be produced. For this purpose it is necessary to spread over the trench, at a distance of three or four inches from the buried wood, [roots,] $5\frac{1}{2}$ lbs. of a mixture formed of silicate of potash, and $2\frac{1}{2}$ lbs. of double phosphate of potash and lime. The trench is then to be filled up, and the roots have as much potash as they want for a long time. To prevent, however, the exhaustion of the potash, it is as well to spread, every year, at the foot of the stools a certain quantity of the *marc* [“cheese,” or refuse of the wine press,] of grapes ; this marc, containing 2.5 per cent. of carbonate of potash, will restore, annually, a large proportion of the potash which may have disappeared from the trench.

“Hitherto, the success of a vintage depended, *cæteris paribus*, in a great measure, upon the influence of the atmosphere. Thus, suppose a vine stock required 10 parts of potash to be enabled to bear fruit ; if the action of heat and rain on the stones and earth, in a state of decomposition, could only furnish 5, the vintage would be bad. This danger will be avoided by the above system of culture, in which the vine must always have suitable food ; but it is not to be forgotten that, although I promise those grape-growers who follow my plan an abundance of produce, I can by no means insure the quality of that produce ; for quality must always depend on the temperature.”

We will add one consideration to the foregoing. Every horticulturist in America deplores the fact, that, while the peach,

the apricot, the nectarine, and even the orange and pomegranate, flourish in great perfection in the United States, yet in no portion of this country does the foreign grape succeed well in the open air.

It has occurred to us, more than once, that although this is doubtless attributable, in part, to our sudden variations of temperature, yet it may also be largely owing to some deficiency in the soil. What is this deficiency? We suspect *SULPHUR*. All the famous wine districts in Europe are more or less *volcanic* in their origin, and many of them are old lava beds, abounding in sulphur; while, on the other hand, volcanic soils are unknown to our grape-growers, as well as the application of sulphur in any form to the soil.

We are strengthened in this opinion by observing the striking fact, that, while the analysis of the ashes of the foreign grape shows only about 2 per ct. of *sulphuric acid*, the analysis of the *must*, pulp, or juice of

the ripe grape, shows more than 13 per cent. of *sulphuric acid*,—a most extraordinary increase; and we believe a larger percentage than is found in any other fruit. (The *potash* in the ashes of the vine is 25., while in the ripe fruit it is 37.; while, on the other hand, the portion of *lime* in the wood is 40. to 6. in the fruit.*)

Reasoning from this, we should say that gypsum, (plaster, or sulphate of lime,) which is sulphuric acid and lime in combination, is largely demanded by foreign grapes, to bring them to a ripe state; and that in our soils, (which are not volcanic,) it must be an excellent application for the foreign grape. Perhaps bones, dissolved in sulphuric acid, (as described in a former page,) would be still better. We are making some experiments, with a view of testing the value of this theory, and state it now, in this hasty manner, to invite the co-operation of other experimental horticulturists.

FOREIGN NOTICES.

THE PINE APPLE.—There can be no question that, in these days of inquiry, gardeners are investigating the matters under their care with an earnestness entirely unknown to the patriarchs of the art. Things which proved insurmountable difficulties to them, are no longer so to the men of the present day, who take nothing for granted, but who apply the talents with which they are endowed with a vigor and a resolution unknown to our forefathers. True, some are yet content to linger in the rear, cavilling and doubting, and faithfully adhering to the old system of stooking and steaming night and day, summer and winter; because they have heard somehow, it matters little where, that, to fruit a Pine plant, it must have a desperate heat, as it comes from the tropics, where the thermometer not unfrequently indicates 100° in the shade. They have, besides, read and practiced, but never questioned the propriety of the statement, that "the bark bed is obliged to be stirred, turned, refreshed, or even renewed several times a year, so as to produce and retain, at all times, a bottom-heat of from 75° to 85° in each of the three departments of Pine

culture. Such directions as these remind us of the books on phisic, which instruct us to take so many doses annually, and to double the quantity in spring and autumn, as if a man in health required either the one or the other.

The men above alluded to are incapable of believing, because, in their easy bliss, they think the thing impossible, that, at Meudon, Mr. Pelvilain has (in a small pit that barely holds them,) 44 plants, which, planted in March and cut in August, produce in round numbers 350 lbs. avoirdupois, or fruit averaging 8 lbs. each! The plants which produce this result have, during winter, an atmosphere just a little above green-house temperature. They are protected by coverings from frost and sudden variations of climate, and are kept rather than forced.

Mr. Fleming's success also results entirely from his practice being in accordance with the laws of nature. He keeps his Pines in fruit during night in fine weather at 65°, but in frosty weather he allows the night temperature to recede to 57°.

* In the ashes of ripe plums, the per centage of sulphuric acid is 3., in pears and cherries 5., and in apples 6.

His younger plants enjoy an atmosphere during winter of 55°. Air is admitted to all of them night and day continually; of course, the quantity is reduced in severe weather, but it is never wholly taken off. The leaves of the Trentham Pines are not a yard and a half long, and an inch broad, with a stake to keep them upright, scabby, fœtid with sulphur, or the colour of ripe cucumbers, appearances common enough. The very reverse of this is the case, as all who have visited Trentham can testify. Cultivators of plants like those just mentioned will not, of course, credit that Pines of the size of those produced at Trentham can be grown at all in such an atmosphere, and with the bottom temperature little and sometimes none above the top heat; such is, however, the fact, and such the results, and not at Trentham only, but at other places where gardeners are determined to swim and not sink, and to distinguish themselves from the potter's clay, which exists in the gardening world about them.

It is well known to intelligent cultivators that the Pine apple has been more frequently roasted to death in this country than killed by cold; and though we do not believe it can be grown successfully, generally speaking, in the open air, in the climate of England, we nevertheless contend that its successful cultivation can be satisfactorily attained in a lower night temperature than has hitherto generally been applied to it. *Gardeners' Chronicle*.

MANURE-WATER FOR POT PLANTS.—Many—indeed most—plants grown in pots may, at particular periods of the growth, be advantageously treated with liquid manure; these periods are chiefly during the time of making vigorous growth, and of blooming. Inexperienced persons, however, are liable to do material injury from using it too strong or too often; or they fall into the other extreme, and derive no benefit from the application. A very useful liquid manure for pot plants may be made by putting the following ingredients into a hogshead of rain water:—two pecks of sheep or deer dung, one peck of soot, and two quarts of Potter's guano; these ingredients are first to be well mixed up to the consistency of paste, with boiling water, and then mixed with cold water. Stir the mixture frequently for a day or two, and then throw in a quart of quick lime; when the liquid has become clear it is fit for use. For all strong growing plants this may be used daily, or every other day,—applying it diluted with about one-third of clear water. For heaths, and similar delicate rooted plants, and even for orchids, it will prove beneficial, but to these should not be given often than once a week. As before observed, it is only to be used—at least by the inexperienced—during the periods of growth and blooming. *London Hort. Magazine*.

PELARGONIUM LUCIA ROSEA.—This variety is in its habit and appearance much like one of the class called "scarlet" pelargoniums. It is a very

compact growing plant, with short-jointed stems, and good sized leaves, of a soft velvety character. The flower-stems are strong, and grow erect, so that the trusses of bloom are brought well above the foliage; the colour of the flowers is a most delicate soft pink, or peach blossom, with a lovely white eye,—altogether a distinct colour among pelargoniums. It is a gem for the flower garden, being not only perfectly distinct, but also superlatively beautiful. Sometimes, when kept in pots, and not very freely grown, we have observed it to produce but small trusses of bloom, but this improves when it is growing freely in the open garden. Probably, however, it may in time be improved on; in the mean time it may chiefly be valued for its novel colour. *London Hort. Mag.*

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RASPBERRIES.—The mode (Fig. 56,) of training these has been kindly forwarded to us by a

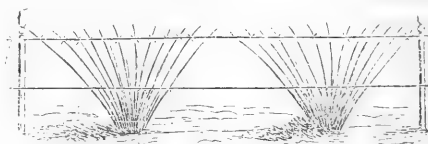


Fig. 56.

correspondent. The uprights between every two or three plants are iron, and the horizontal lines, to which the canes are attached, tar-rope. The following wood cuts, which we borrow from p. 836 of our volume for 1842, represent a much



Fig. 57.

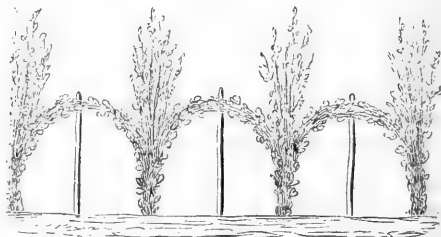


Fig. 58.

better mode of training raspberries. The plants are supposed to be placed in rows 4 feet apart, and about the same distance from one another in the row. The number of shoots on each is regulated during the growing season, no more being allowed to remain than the plant is capable of supporting. In most cases 6 or 8 shoots will be sufficient. Where this method is practiced, a row

of raspberries in autumn will have something of the appearance represented in fig. 53; the arched portion, tied to the stake in the centre, being the canes which bore fruit last year, and which must be cut down to the bottom, and be replaced by the upright shoots of last summer, trained in a similar manner to those represented in fig. 57. *Gard. Chron.*

EIGHT CONSERVATORY CLIMBERS.—1. *Combretum purpureum*, or, as it is now called, *Poivreia coccinea*, a half shrubby plant, with oval leaves, and branching spikes of scarlet flowers, with conspicuous stamens; it will flower all the summer by stopping the strongest shoots occasionally. 2. *Echites suberecta*, a beautiful yellow flowering plant, which has generally been grown in the stove, but will answer well for the conservatory by spur-pruning, like the vine; it is a very strong grower. 3. *Ipomœa Horsfalliæ*, a splendid plant, with deeply lobed leaves, and bunches of crimson blossoms; should have a warm close position. 4. *Mandevilla suaveolens*, a very fine grower, with hairy oval leaves, and bunches of white deliciously fragrant flowers. 5. *Passiflora racemosa*, a splendid crimson passion-flower, which will flower freely nearly the whole year; does best grafted upon one of the hardier sorts. 6. *Plumbago capensis*, an easily grown plant, with long slender stems, bluish leaves, and good sized bunches of pale blue flowers; may be had in bloom from April to November, by cutting back some of the strongest shoots in summer. 7. *Stephanotis floribunda*, a beautiful evergreen plant, with dark green shining blunt oval leaves, and bunches of white deliciously scented blossoms; it is a splendid thing when planted out in a conservatory border, and grows very fast. 8. *Tecoma jasminoides*, a very free flowerer upon the young wood from July to the end of October; it has much divided leaves, and bunches of white flowers, with a crimson centre. *London Hort. Magazine.*

ASPARAGUS BEDS.—How common it is to see a large portion of a kitchen-garden devoted to asparagus, and yet when you congratulate the owner on the advantages you presume he possesses with his lamb-chops in spring, he tells you his beds are worn out. I once came into possession of a bed which had this character of decrepitude, and succeeded in making it very prolific, and I have no doubt others may do the same.

As it is true in gardening, as well as in philosophy, that *ex nihili nihil fit*, you must take care that your asparagus bed is well supplied with plants, before you proceed to a treatment which will make the plants robust and productive. Sometimes there are gaps of several square feet, or the plants are thinly spread over the whole bed. Rectify this as soon as you can, by marking, in the growing season, all such vacancies, and filling them up in the autumn or the spring. About nine inches apart is a good average distance, although probably a foot would secure a

larger product. Having secured a good plant, as agriculturists express it, the next thing is to make it vigorous. Lay down this rule as having no exception—that if your beds have not a vigorous growth in the summer, you will look in vain for fine asparagus in spring. As the succulent shoots proceed from the buried root, their size must be in direct proportion to the healthfulness of that root, or to the quantity of organisable matter that root has stored up. How, then, can the root be brought into a proper state for producing large shoots? By giving every advantage to the plant during the summer and autumn; so that if your beds this summer are covered with a tall and strong vegetation, the abundance of solar light, &c., will convey a proper supply of matter to the root for next season, and you will cut fine asparagus; but, on the other hand, if there appears only a stunted and weak growth, your produce will be small.

If the principle just laid down is correct, the mode of treatment must consist in judicious cutting, and the application of proper manure. I know many beds which have been ruined almost by an unsparing cropping, and in cases where there has been no deficiency of manure. If the bed has been injured in this way, or if from any cause the shoots appear thin and spindling, do not cut them at all, but let the bed have a rest during a whole season. The next spring the advantage will be manifest. Nothing would tend more to bring exhausted beds round than this generous treatment, and by the sacrifice of a few dishes now, you will secure an abundance next year. What is true of a whole bed applies also to individual plants. I always leave the weak shoots in the beds, on the presumption that by cutting them they will become weaker, but that they will make robust shoots by being allowed to grow and bask in the air and the sun. My remarks also lead to another practical conclusion—to leave off cutting in time. Fine shoots must not be looked at with a longing eye, as though it were waste to let them run to branches and flowers. They are the parents of a future race, and ought to be kindly and respectfully treated.

Manure must be plentifully given in conjunction with the above mode of treatment. It should be applied at such times that the growing plant may receive the benefit. It is possible for a top-dressing put on in autumn to have all its valuable properties washed below the reach of the roots, before they begin to exercise their vital powers. However, cover the beds with good dung in autumn, but do not neglect to furnish a fresh supply in spring. Salt and liquid manure should be used at the latter period, as they become immediately available. I have just dressed my beds in the following manner, and it is not too late for others to adopt the plan. I covered them with salt, so that on a dry day the whole surface looked as though it had been snowing; they were then watered with about 60 gallons of liquid manure,

saved from a stable during the winter. When this had sunk in, the beds were raked, stones picked off, and a neat appearance given them. If you have no liquid manure, make some by diluting good stable dung with soapsuds, &c. As the roots will soon begin to move, the soil will be furnished with those materials which will ensure a quick and strong growth, and, if the beds were healthy last year, you may depend on a crop.

As I have been able by this treatment to make old beds of asparagus to produce fine crops, I can recommend it; and I hope amateurs will themselves study the *rationalité* of the practice. It is to be regretted that so many gardeners are contented with the "light of other days," and fail to use modern improvements and scientific principles. Although the *Chronicle* has so large a sale, and has for years been endeavoring to enlighten the public mind on these matters, the greater number by far of those who take an interest in gardens never see it. I endeavored lately to explain to a friend the reason of the success of my asparagus beds, and I could see I was listened to almost as an expounder of magic. Digging and manuring are the specifics with most persons, while science is neglected, and the result is, an accidental and occasional success, but at the same time repeated and provoking failures. *H. B. Gardeners' Chronicle.*

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PRODUCTS OF NEW MEXICO.—*Maize Sugar.*—"Here I witnessed the fabrication of sugar from corn-stalks. The alcalde owns the mill and boiling house, and the use of these is paid in syrup. The owner of the corn-stalks assembles his neighbors, and, proceeding to the mill, places the stalks, cut into short pieces, into a large wooden trough; and each man, arming himself with a heavy mallet, soon breaks the stalks into small fragments. Boiling water is poured upon them, and then the mass is put into a hollow tree set upright in a trough; into this a plug is loosely fitted, across which a long pole fixed at one end is laid, and all the young people getting upon this lever, the juice is soon pressed out and poured into earthen pots built into the top of a large furnace, kept burning night and day; women continually stirring the liquor, until it is thick, when it is run into small clay moulds, (unless it should be wanted for molasses.) The workmen are repaid by an invitation to the house of the owner of the sugar, where they are regaled with molasses and tortillas."

The Soap Weed.—"We first met, on this part of the road, with the species of palm called by us soap-weed, from the fact that the Mexicans use its root as a substitute for soap, for which it answers very well. Indeed, it is considered superior to it for the washing of woollens. I believe it is rightly named the *Lechuguilla*. This singular shrub, which is to be also met with on the prairies, but where it never grows to any con-

siderable size, consists of a trunk, very pithy, surmounted by a fine head of stiff leaves, each of which is about 2½ feet in length, and armed at the end with a long thorn. The leaves project from the stalk on all sides, and set as close as possible, and are of a dark green color. The flower is white and very pretty. As each year's foliage decays, it drops down against the trunk, of a light brown color. These dry leaves, when fire is applied, flash up like gunpowder, and burn with a bright light. Our night marches could be marked by their flames, which, as the nights were cold, (although the days were comfortable,) were cheering. I have been thus particular in describing this plant for several reasons:—one is its many uses—of the leaves the natives make their hats; also, when dressed like hemp, it is formed into ropes and sacks, looking like the material known as Manila hemp, though coarser. These plants have a singularly provoking quality; being from two to eight feet in height, they will assume to the eye, in the twilight, the most deceptive forms. To the sentinel they will appear as forms of men; and many an unconscious soap-weed has run the chance of a sentry's shot, from not answering to the challenge of "Who goes there?"

American Aloe at Santa Cruz.—"In order to obtain the liquor from this Aloe, the leaves are cut off level with the ground, and the root is dug up. The latter is about the size and shape of a quart bowl, and is of a dry, woody texture; but on being piled in large heaps and roasted, it becomes very juicy and tender, and of a sweet taste. The roots are then pressed, and the liquor allowed to ferment; after fermentation it resembles beer in appearance, and somewhat in taste, but a little smoky, and is called pulque. It is drunk very extensively by the lower classes. From the pulque there is distilled a clear, colorless liquor, of a most acrid and burning taste, which is the mescal. It is only fit for a Mexican to drink—he can do it without winking; but I shall never forget a glass of it which I swallowed at San Rosalia, and which was considered of an extra good quality. It appeared to draw my tongue half way down my throat, and took my breath away for an instant. It was the first and last glass of mescal I ever drank."

Agricultural Condition.—"The general appearance of the country has not been previously mentioned. The whole extent of what we had travelled through, except just along the banks of streams, is of the most barren description, being principally composed of a hard yellow clay, so poor that, in most places, grass cannot be raised. I have travelled more than a hundred miles at a time without seeing sufficient grass to furnish my horse with a meal, and without meeting with a stone as large as a pebble. The roads, except in a few places where they happen to cross mountains, are excellent, being as hard and level as a floor. The land can only be cultivated just along the banks of the streams; and there the fertility

of the soil amply repays the farmer, as the crops do not seem to exhaust the ground. Many farmers work the same ground fifty years or more, without spreading upon it a particle of manure. The seasons are also favorable to the husbandman. Rain, however, is rare. Before we left El Paso, which was in January, the inhabitants were plowing, and sowing corn. I have no doubt that, were the Mexicans not so excessively lazy, they might produce anything they chose; but when they have put seed into ground, they think they have done enough; and if it should not come up, and the plant thrive, instead of doing as we should, setting to work to remedy it, they simply 'call on Hercules;' in other words, fall upon their knees at the altar before the priest, tell him how unfortunate they have been, buy a blessing from him, and go home in blessedness. The inhabitants produce maize, oats, wheat, onions, melons, grapes, and several other fruits. I never saw any potatoes, although, as we know, it is currently said that the root grows wild in the southern parts of Mexico. I have seen as fine melons, grapes, and corn in Mexico as I have observed anywhere; and I have purchased onions as large as an ordinary sized dinner plate."—*Edward's New Mexico.*

NEW PLAN OF COOKING POTATOES.—About this season of the year, the skin of potatoes becomes so exceedingly tough that it will not crack in the operation of boiling, the superabundant moisture and other matters contained in the potato cannot escape, and the consequence is that the tuber boils soapy and wet. I believe that cooks peel potatoes at this time of the year because of the toughness of their skins, which emit a disagreeable smell in cooking. I have at all times found that before Christmas, the less water potatoes are boiled in the better, using plenty of salt; but that after that time, and up to the period when the old ones begin to go out in spring, the more water used the better, not with the view of improving the potato, but of obviating the smell, which arises from its skin. In making this and the following statements, I am aware that I am placing myself in the same position with regard to cooks that the bear was in with respect to the bees. By the dab of the wench of all work up to the great Soyer himself, I shall be told that by boiling potatoes at this time of the year with their jackets on, a bad flavor is imparted to the whole mass, and this is no doubt true; but if I advocate the bane, I will also give the antidote. My plan is as follows: Let the potatoes be washed clean with a brush; then take a knife and cut the skin through all round the potato, do the same lengthwise and put them in plenty of water (salted.) It will be found, when the potatoes are boiled, that where the skin was cut, it will have separated considerably, and allowed the moisture to escape. The labor of peeling, moreover, will not occupy one quarter of the time which is required in removing the skins before cooking,

leaving out of the question deep peeling, by which the most farinaceous part of the potato passes to the hog tub. If a cook in a large family cannot afford time for skinning potatoes at dishing up time, they might be boiled a quarter of an hour before they are wanted, and put into an oven, where they can be kept hot; but potatoes are best sent to table with their jackets on, for the latter keep them longer hot; and if cooked on my plan, the skins peel off with the greatest ease; all who have tried my method like it uncommonly well. *James Cuthul, Florist, Camberwell. Gardener's Chronicle.*

CULTIVATION OF CELERY.—At a meeting of the Horticultural Society in Regent-street, held Dec. 5, Mr. Cole, gardener to H. Collier, Esq., of Dartford, exhibited some very fine red celery, to which a certificate was awarded, and with it he sent the following account of its cultivation, which we extract from the last number of the Society's Journal. "Herewith I take the liberty of handing you six sticks of celery, of a kind which I have grown for the last three years, and which I think, both in point of size, solidity, and flavor, will be found superior to any which has hitherto been cultivated. The specimens sent are not selected, but are merely examples of a general crop, planted without any object in view beyond that of the supply of my employer's table, and entirely without ever thinking of sending any of it for public exhibition. My stock consists of 600 plants, planted in rows, four feet apart, and the plants 9 inches apart in the row; and I have not a doubt that the whole crop would average 6 lbs. per stick. Not the least remarkable excellence in this celery is, that it will stand 12 months without running or starting for seed, and such a thing as a pipy or stringy leaf I have never noticed so long as I have grown it. For a more substantial detail of my method of cultivation, I may remark the seed was sown the first week in February, and so soon as the plants were large enough they were pricked out in garden soil, rich in vegetable matter, under hand glasses. The trenches were prepared in the usual manner, in the first week in June, by excavating them nine inches deep, and digging in a good dressing of spent dung. The plants were of course strong when they were planted out, and each was removed to the trench with a good ball of earth adhering to the roots, so that, (afterwards receiving a copious watering,) they sustained little or no check. In earthing celery, I generally endeavor to steer between the two extremes of frequently earthing, and earthing only when the plants are full grown, believing that a little earth after the plants are fully established in the trenches, say a month after planting, promotes the rapid growth of the plants, more especially if they receive a good soaking of weak liquid manure, or soot-water, a day or two before they are earthed. Soot-water is an excellent manure for celery; and where worms and other insects are troublesome, a little dry soot

dashed along the rows will be found a preventive of their ravages. The kitchen garden here being upon a boggy subsoil, and below the level of the river Dart, which passes through the grounds, I do not find it necessary to water the plants more than once or twice after they are planted out; but in more elevated situations it is almost impossible to give too much water, always, however, preferring to give a thorough soaking once every fortnight, rather than daily dribblings, which, in my opinion, do more harm than good. Were I so disposed, I have no doubt I could grow this celery double the size of that sent; and to effect this, I should prepare the plants as before directed, excavate the trenches 18 inches deep and the same in width, and fill them with a compost consisting of good turfy loam, peat, and leaf-mould, or thoroughly decomposed cow-dung, in about equal quantities. Very rich dung is not good for celery, and strong manure water should also be avoided. To grow large celery it would be necessary to place the plants 18 inches apart in the row, and the ground should be kept constantly stirred about the plants, taking great care, however, to prevent the soil getting into the hearts of the plants during the operations. In a late number of the 'Journal of the Horticultural Society,' I perceive Mr. Errington attributes the coarse and bad quality of the large celery grown for market to the luxuriance of its growth. Here, I venture to assert he is wrong. The bad quality of the celery is attributable to the bad kinds grown, as I am quite sure no person could grow this kind of celery, which has been named Cole's Superb Red, so as to make it either pipy or stringy, or inferior in flavor. Late earthing has more to do with making celery stringy than anything else, as it is quite certain if the leaves of celery are exposed to full light and dry air for a length of time, the tissue will become harder than if the leaves were grown in comparative darkness. We need no stronger proof of this than the acrid flavor of the outer as compared with the inner leaves of the same celery, a fact demonstrating that if the leaves are exposed for a long time they acquire an acrid flavor which no blanching can wholly remove. For an early crop of celery I sow in heat early in January, and prick the plants upon a slight hot-bed; for a second crop in February in heat, as before directed, and for a late crop in March in the open garden."—*Gard. Chron.*

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PREPARATION FOR SEED-SOWING.—If we take a survey of our neighbors' gardens in the months of May or June, we shall find great differences in the state of the crops, some being very much in advance of others, although the soil and situation are in all the cases the same. Peas, Beans, Onions, &c., are more valuable by being produced early, and it is therefore important to know how this can be best accomplished. "When did you sow your Onions?" says one gardener to another, "for they are bulbing while mine are

scarcely above the ground." "In the middle of February," is the reply. "How did you manage that?" rejoins the inquirer, "for at that time my ground was so wet that I could do nothing with it." The explanation of this apparent mystery, by which one man gets the start of his neighbor, is simple enough, although in practice the matter is too much neglected.

Some gardeners neglect their ground from the autumns until the opening spring reminds them that it is time to bestir themselves, and put in the seeds for the crops of vegetables so highly prized when grown early and well. Acting on this premonition he goes to the garden, and the day being warm and sunny he anticipates no difficulty, and hopes before evening to commit to the earth the seeds he has prepared. But he is grievously disappointed. The first stroke of the spade or fork reminds him that a bright day or two are not sufficient to draw off the moisture occasioned by the rains and snows of the whole winter. His shoes are heavy with the adhering clods, and his spade almost refuses to do its work, and he is compelled to desist. Next day probably it rains again, and it is not until a continuance of March winds have dried up the earth, that he can accomplish his purpose. In the meanwhile his neighbor has sown all his seeds, and they are above the ground. How did he accomplish this?

This more successful gardener came to his beds on the bright day mentioned above, and began, not to dig, but to level the hacks and the trenches which had been thrown up and dug out some months or weeks previously. He found the soil nicely pulverized, and when the spade had thus done its easy work, the rake was available, and the work was done. The secret of his success is, that he had thrown up his ground before the frosts came, and they did gently and quietly, yet effectually, what no skill and labor could otherwise have accomplished. It is this foresight which is indispensable for early seed sowing. Nor is this the only benefit resulting from this trenching in winter. Insects are prevented from increasing, and the soil is more capable of causing a rapid germination of the seed. This work had better have been done before Christmas, but it is not now too late. Let every part of your kitchen garden which is unoccupied be thrown into ridge and furrow, and after a sharp frost you will experience the benefit. Unless this advice is taken you cannot sow early, nor will the operation be performed so well whenever you may do it. *H. B. Gard. Chron.*

.....
PREPARATION OF SOIL FOR POTTING, &c.—Nothing is more vexatious to the amateur gardener, than to find it necessary to repot his plants, and be destitute, at the same time, of the right material. Or perhaps some choice plants are given to him, around the roots of which he sees fragments of a light, porous, and healthy-looking compost, and he looks all round his garden for something of the same quality, in which to pot

them, in vain. This vexation would never occur if a little foresight were exercised; and we will now endeavor to initiate our readers into the art and mystery of making a mould-heap. Humble though such a possession may be thought, it will save much trouble to have one, and tend, more than any one thing besides, to ensure a stock of healthy plants.

Two things are necessary to the soil of all potted plants, with very few exceptions; it must be fibrous and porous. Turn out the plant purchased in a respectable nursery from its pot, and you will find the mould is light and spongy, admitting a free passage to the roots, each one of which may be separated without difficulty and injury from the surrounding mass. Perform the same operation on a plant potted by an unskilful hand, and how great a difference will present itself? The soil is heavy, like a mass of kneaded clay; the roots are heavily embedded in it, so that they will break rather than be separated; and water will with difficulty pass through it. Prepare your heap at once, that all your pots may in future be furnished like the first mentioned, for your own satisfaction and the comfort of the plants. First get a quantity of turf from a loamy meadow; let it be cut rather thick, and then laid in a heap, or, as I have seen done in large gardens, let it be stacked up, and a thatch put on it, to ward off wet. If this be allowed to stand six or twelve months, all insects will be dead, the grass will be decayed, and the whole will be a fibrous mass adapted for almost

anything. Add to this an equal quantity of leaf-mould, or leaves thoroughly decayed, and about an eighth part of coarse sand, and you will have a compost to your hand in which any plants will flourish. If you prefer it, you need not mix more than you want at once, and can accommodate your proportions to the various productions you pot. But whichever plan you adopt, the fibre of the turf and the sand will secure you lightness of texture and sufficient drainage, so that when your plants are watered, the liquid will quickly run through.

But what is to be done before this compost heap is made, for a whole season will have passed before turf now stowed away is fit for use? The only advice we have you is, to get materials as nearly like those recommended as possible, and make shift until you are better provided. If your flower beds have had a layer of rotten leaves put on this autumn, the frosts and rains will by this time have brought it to a nice state for use. Beg a little of that, mixed with the lightest soil you can find. Mix up small stones, bits of rotten wood, &c., all together, for those things will secure a drainage, and it is a fatal mistake to pot plants in *fine* or *sifted* soil, as some ignorantly do. Experience will be the best teacher in this matter, and a practical gardener will know as well what soil will do for a plant as a careful nurse knows what kind of bed and clothing will promote the health and comfort of her infant. *Gardeners' Chronicle*.

DOMESTIC NOTICES.

TEA IN THE UNITED STATES.—MR. JUNIUS SMITH, of South Carolina, has undertaken, with a great deal of enterprise, the introduction of the tea plant into that state, with a view to the culture and production of tea as a staple crop. He has, we understand, already received several hundred plants from China, and also several pounds of seed, with which to commence operations.

That the Tea plant (which belongs to the same group as the Camellia) may be perfectly acclimated as far north as Virginia, there cannot be a doubt; and we can see no obstacle, if the proper site and soil be selected, to its *profitable* cultivation.

But Mr. SMITH must not be disappointed if he fails in acclimating the identical Tea plants imported from China. The experience of scientific cultivators has well established a fact that foreign trees or plants, which are originally somewhat tender in a climate new to them, never become more hardy by a course of cultivation in that climate, however long continued; or by any propagation by cuttings or grafts of those original plants. It is only by *reproducing new plants from seed grown*, (or at least sown) *in the adopt-*

ed climate that, the tender species becomes more hardy and adapts itself to the greater vigor of the new climate.

A most complete illustration of this fact, and one directly bearing on this plant in question, has been laid before our readers lately in the account given by Mr. FEAST, of the experiments at Baltimore in acclimating the Camellia. He has shown by Dr. EDMUNDSON'S experiments that while the original species and varieties of the Camellia suffered greatly when planted out in the climate of Maryland, the *seedlings* raised from those species and varieties have proved perfectly hardy.

We commend this instructing fact to all those interested in acclimating the tea, the olive, or any other half hardy and valuable plants.

.....

GERMAN GREENS.—This is a species of *colewort* or dwarf kale, which we find a great acquisition to our list of hardy and popular spring vegetables. We received a large package of seed last summer from Messrs. THORBURN & Co., of New-York, with directions for sowing it in August and covering it slightly in winter. We

sowed it broad cast about the last of August, and thinned the plants in the same way as field turnips about the last of September. We left it entirely exposed to all the frosts of the late severe winter, and found it entirely uninjured on the opening of the spring.

With the disappearance of the snow this plant begins to vegetate, and soon puts out a tuft of curled leaves about as large as a large head of lettuce. These leaves are excellent "greens," with a flavor not inferior to, and much resembling that of good broccoli. They may be cut several times in succession, and no plant with which we are acquainted, which is cultivated for the same purpose, will give so large a supply of vegetable food from a limited space of ground as this. This vegetable has long been grown in Europe, but is as yet very little known in the United States. Its great hardiness, productiveness, and the ease with which it may be grown in any soil, will doubtless bring it into very general cultivation.

.....
AGRICULTURAL COLLEGE.—By direction of the legislature, the Governor of the State of New-York has appointed a board of eight commissioners, (one from each judicial district) who are to meet at Albany and "mature a plan for an Agricultural College and experimental farm," to be laid before the Legislature of this State at its next session.

The following are the commissioners appointed:
 JOSEPH BLUNT of New-York, 1st district.
 A. J. DOWNING of Orange co., 2d "
 JOHN P. BECKMAN, Columbia co., 3d "
 SAMUEL CHEEVER, Saratoga co., 4th "
 EDMUND KIRBY, Jefferson co., 5th "
 ADRIAN LOTT, Chenango co., 6th "
 J. S. WADSWORTH, Livingston co., 7th "
 WM. RISLEY, Chautauque co., 8th "

.....
NEW HARDY PLANTS.—MR. DOWNING—The following plants recently introduced from China into the Horticultural Society's Gardens of London, have proven perfectly hardy with me the past severe winter:

WEIGELIA ROSEA, a strong growing shrub with a profusion of flowers in clusters of from 2 to 5, of a delicate blush colour changing to deep rose; plants from 6 inches high to 1½ foot, stood out fully exposed in my nursery, without protection, and proves more hardy than *Deutzia scabra* or the common *Althæa*. It is also admirably adapted for forcing into bloom for bouquets.

DEUTZIA SANGUINEA—Perfectly hardy, but has not yet bloomed, even on the plants placed in artificial heat.

ANEMONE JAPONICA—An herbaceous plant that blooms from September till severe frost, with rosey purple flowers about 2 inches in diameter, and is a great acquisition to a flower garden.

FORSYTHIA VIRIDISSIMA will prove to be an evergreen in southern latitudes. It has not yet flowered, and proves to be about as hardy as *Mahonia*

fascicularis, and will be an ornamental evergreen south of Virginia.

The past winter has been the severest on evergreens that has occurred since 1832. *Deodar* Cedars have their tops very much injured; *Araucaria imbricata* will lose its leading shoot; *Euonymus japonica* has also been severely punished. The hedges have lost their foliage, but appear to be pushing out freely, and in a few weeks will be as green as ever. *Pinis Douglassii* I fear will be like the silver spruce, losing its leader every season. I have not tested *Cryptomeria japonica* out of doors, but do not doubt but that it is more hardy than *Cedrus Deodora*. Yours, truly, R. Buist.
 Philadelphia, April 14, 1849.

.....
ORNAMENTAL TREES IN VILLAGES.—The following effectual plan of ornamenting a village with shade trees, has been adopted by T. G. YEOMANS, of Walworth, N. Y. During the past winter, Mr. YEOMANS posted up conspicuously in the village, the following propositions signed by himself; and already several hundred trees have been planted, and several hundred more will probably seen be planted in pursuance of the bounty he offers:

"I hereby offer to any and every person who will plant out and properly protect shade trees in this village, in any of our streets, or in the Academy grounds or other public grounds, not more than one hundred rods from some one of the public buildings in the village, the premiums hereinafter named. The trees may be Maple, Elm, or any other equally hardy and ornamental sort; they must be made to grow three years after planting, and be at that time in a flourishing condition and not less than three inches in diameter, three feet above the ground; and not less than five so planted will be entitled to any premium; and this offer will not extend to trees planted more than two years from this date.

"1st. On all trees answering the foregoing description, I will pay *twenty-five cents each*. 2d. To any person so planting more than fifty and less than one hundred trees, I will pay *twenty-five cents additional for each tree over fifty*. 3d. To any person so planting one hundred or over, and not more than half of them on his own grounds, I will pay *fifty cents for each tree*. 4th. To any person planting thus the *greatest number* and not less than fifty, I will pay an additional premium of *twenty-five dollars*. Dated Walworth, January 29, 1849. T. G. Yeomans."

The foregoing plan, which seems to operate so well here, would doubtless answer equally well in other places, and where a single individual cannot be found willing to incur the entire expense, several might join and as successfully accomplish the same end through their united efforts. Those persons who are usually most willing to incur expense for such a purpose are otherwise engaged, and through neglect or want of attention at the proper time, more than the want of means or willingness to expend their money for this object, the

season is passed over and the trees are not planted. But this plan gives the labor to those who need it, and the expense falls on those who are able and willing to bear it, while the inducement is sufficiently strong to give assurance that the work will be done in the best manner. *L. T. Walworth, April 1849.*

[We give our hearty commendation to efforts like the above, and should be glad to hear that individuals of sufficient taste and public spirit could be found in every village in the United States to induce those who have so little love of their own neighborhood or home as not to care to render it attractive, to do so from other motives, trusting to the certain influence of beautiful trees to work its own happy results in good time on the hearts of all those who live in the midst of them. Ed.]

.....
OVERBEARING OF DWARF TREES.—Having, like many others at this time, caught the tree fever, I am desirous of finding out the best remedies for the doubts and ills that beset me. So much has been said and written on the method of setting out trees, the preparation of borders, digging the holes, &c. &c., that upon this point there is no lack of information, nor much disagreement of opinion; we have sailing directions enough, and it is pretty well understood now that a tree must not be planted as though it was a post; but not so in regard to the management of the tree *after* it is set out. I know we often have dissertations upon the management of trees, but those I have read treat mostly of *pruning*, and upon this subject scarcely two agree, and there seems to be no settled theory or practice.

I have particular reference now to the French, or Dwarf Pear trees, on Quince. Every one acquainted with these trees, knows that some kinds are inclined to come into early bearing, and it is an admitted fact that young trees suffered to bear a full crop, will receive a check to their growth, from which they rarely recover. Now what I desire to know is this: whether it is best to suffer such trees to flower, and then cut off the blossoms, or let them set their fruit and then pluck it off, whether the *whole* or *part*; or to nip off the fruit buds in March, and thus prevent altogether the flowering and formation of fruit? I have put these questions to some of my amateur friends, but without any philosophical answer; some say one way, some another; doubtless any way is better than to allow the tree to bear, (if growth is the object,) but I find no one who has made any experiments, and it seems desirable to find out and adopt the least exhausting process, and encourage the steady growth of the tree.

Of the kinds inclined to early bearing, the *Bartlett* and *Louise Bonne de Jersey* stand foremost. I have trees of the latter set out in '46, which bore full in '47, a fair crop in '48, and some fruit buds this year, but no growth, no new wood, and probably no more fruit after this year; and I doubt if thrifty trees can now be made of them.

I am of opinion that this variety and most of the other varieties, should not be permitted to bear fruit till the 2d or 3d year.

I know, Mr. Editor, it is very hard to make new beginners pluck off the young fruit. I was myself told I should spoil my trees, but did not believe it, and I liked to see the fruit grow, but I have learned better now, and am desirous of further light from some of the more experienced tree growers. If sir, you can find leisure to answer my queries, either by letter or through your journal, you will much oblige your obedient servant, *W. R. Austin, Dorchester, Mass., April 8, 1849.*

[Removal of the fruit buds in the spring, before they open, is the best mode of throwing additional vigor into the growing buds. When young trees have been injured by premature overbearing, the wisest course is to shorten back the previous years' shoots to one bud. This, with the aid of a little animal manure, will cause the tree to push out vigorous shoots, and regain a luxuriant habit much more speedily than if the sap was forced to circulate through the contracted sap vessels of the last years' stunted growth. Ed.]

.....
ANALYSIS OF SOILS.—All our readers, alive to the importance of a chemical knowledge of the soil they cultivate, will be glad to hear of a most laudable movement lately made by the *American Agricultural Association*, of New-York, to enable farmers and gardeners to learn with accuracy, and at a reasonable cost, the nature of the soils they cultivate.

The great cost of obtaining an accurate analysis of soils has, hitherto, prevented nine-tenths of the farming class from seeking this information,—important as it is to a systematic and intelligent improvement of the land.

By the following circular, which has been placed in our hands by one of the officers of the American Agricultural Association, it will be seen that an analysis may now be obtained, under their patronage, at a price so moderate that every cultivator can avail himself of the opportunity to ascertain the exact composition of his fields or garden:

“In order to afford to practical agriculture all the benefits which recent discoveries in chemistry and the collateral sciences are capable of yielding, the American Agricultural Association have established a *chemical laboratory*, in which the farming community can have samples of surface and subsoil analysed, together with manures, marls, gypsum, &c.; and that this institution may be made extensively available, the charges for analyses have been struck at the following low scale:

- 1.—Complete quantitative analysis of a soil, determination of all ingredients, and advice connected therewith,..... \$5 00
- 2.—Approximate analysis of surface or sub-soil, 1 00
- 3.—Analysis of bone dust, gypsum, &c., to determine the presence of one ingredient, 0 50

- 4.—Guano and other artificial manures, .. \$1 00
 5.—Correspondence (without analysis) on
 a particular subject,—to enclose, 1 00
 "The above fees to accompany all samples, or
 communications.

"Commercial analyses, testing ores, minerals,
 drugs, &c., conducted in the laboratory with care.

"For analysis, 1 lb. of sub or surface soil
 should be collected from the average quality of
 the ground; all samples to be forwarded to Dr.
 ANTISELL, chemist to the association, at the labo-
 ratory, 140 Grand-st., corner of Eln-st., N. Y."

SELECTION OF GOOD FRUITS.—We extract the
 following interesting remarks, on fruit culture and
 selection of varieties, by that experienced New-
 England cultivator, SAMUEL WALKER, Esq., of
 Roxbury, now President of the Massachusetts Hor-
 ticultural Society, from the Report of the American
 Institute. Ed.

In submitting the following list of the best Ame-
 rican varieties of apples, pears, and plums in jux-
 taposition with the best European varieties, it is
 not my intention to make any invidious compari-
 son; on trial,—the truth, the whole truth will be
 amply sufficient for any purpose. I shall, there-
 fore, leave the result in the hands of the best
 judges—the cultivators—simply stating, that I
 shall select the best varieties from the catalogues
 of the New and the Old World.

APPLES.

American Varieties.

- 1 Early Harvest,
- 2 Williams' Apple,
- 3 Benoni,
- 4 Porter,
- 5 Pomme de Neige,
- 6 Baldwin,
- 7 Yellow Belle Fleur,
- 8 Newtown Pippin, (green)
- 9 Rhode Island Greening,
- 10 American Golden Russet.

European Varieties.

- 1 Early Red Margaret,
- 2 Red Astrachan,
- 3 Sops of Wine,
- 4 Gravenstein,
- 5 Ross Nonpareil,
- 6 Dutch Mignonne,
- 7 Cornish Gillyflower,
- 8 Ribston Pippin,
- 9 Herefordshire Pearmain,
- 10 English Golden Russet.

I will not carry out the comparison farther, but
 submit a list of American varieties, all of which
 are deserving of extensive cultivation, viz :

Large Yellow Bough, Chandler, Fall Harvey,
 Jonathan, Minister, Hubbardston Nonsuch, Ram-
 bo, River, St. Lawrence, (Corse's) Northern Spy,
 Esopus Spitzenburgh, Summer Queen, and La-
 dies' Sweeting.

PEARS.

American Varieties.

- 1 Bloodgood,
- 2 Dearborn's Seedling,
- 3 Pratt,
- 4 Knight's Seedling,
- 5 Tyson,
- 6 Seckel,
- 7 Cushing,
- 8 Heathcot,
- 9 Andrews,
- 10 Buffum,
- 11 Dix,
- 12 Lawrence,
- 13 Columbia.

European Varieties.

- 1 Citron des Carmes,
- 2 Passans du Portugal,
- 3 Williams' Bonchretien,
- 4 Flemish Beauty,
- 5 Rostiezer,
- 6 Fontaine d'Automne,
- 7 Bezi de la Motte,
- 8 Doyenne Blanc,
- 9 Louise Bonne de Jersey,
- 10 Doyenne Gris,
- 11 Beurte Diehl,
- 12 Duchesse d'Angouleme,
- 13 Glout Moreau.

In addition to the above I will add a list of Eu-
 ropean varieties of great merit, viz :

Beurre d'Aremberg, Beurre d'Anjou, Beurre

Bosc, Eyewood, Henry IV, Van Mons Leon Le
 Clerc, Marie Louise, Winter Nelis, Paradise d'-
 Automne, Passe Colmar, St. Ghislain, Vicar of
 Winkfield, Urbaniste, and Echasserie. For baking,
 Belmont, Black Worcester, Catillac, and Uve-
 dale's St. Germain.

PLUMS.

American Varieties.

- 1 Jefferson,
- 2 Columbia,
- 3 Washington.

European Varieties.

- 1 Green Gage,
- 2 Purple Gage,
- 3 Coe's Golden Drop.

To this list of plums I will add the following
 American varieties as worthy of a place in every
 good collection, viz :

Purple Favorite, Huling's Superb, Imperial
 Gage, Lawrence Favorite, Bleecker's Gage, and
 Bingham.

CHERRIES.

The best varieties of American and European
 cherries are very dissimilar. I shall therefore
 submit a list of such varieties as I consider of the
 best quality, viz :

American Varieties. Sparhawk's Honey, Dow-
 ner's Late, Sweet Montmorency, Manning's Mot-
 tled, Downing Red Cheek.

European Varieties. Black Eagle, Black
 Heart, Black Tartarian, Downton, Knight's Early
 Black, Bigarreau, Bigarreau Holland, Elton, Flo-
 rence, Belle de Choisy, May Duke, and the Late
 Duke.

By the foregoing statement it will be perceived
 that among the well established apples and plums
 in this country, a majority are the product of
 America. Of pears and cherries, the greater num-
 ber of choice kinds have been imported from Eu-
 rope.

I will now proceed to the second part of my
 subject, and notwithstanding my esteemed friend,
 Thomas Bridgman, Esq., has with ability and
 good judgment brought the subject of seedlings
 under the notice of the managers, yet I shall not re-
 frain to state all I intended to do before I received
 Dr. Bridgman's able report.

I am aware when a word of caution is to be
 spoken, or an error pointed out, that it should be
 done with candor and kindness; in that spirit the
 following remarks are submitted on

SEEDLING FRUITS.

My object is to point out an error, may I not
 rather say, a weakness, on the part of some culti-
 vators of fruits, to overrate their own productions,
 more especially so when they raise a seedling
 apple, pear, plum, peach, or cherry, having any
 pretension to merit. If their production is of the
 best quality, and possesses but a single point of
 superiority, say only a shade of color, or a slight
 increase of size, in addition to the good qualities
 of the most choice variety of that class of fruit in
 the present catalogues, that alone will commend it
 to other persons, and they will mete out its praise
 in due season.

No seedling should be recommended for exten-
 sive cultivation until it shall have been proved to

be superior in some respects to the variety it most resembles. For instance, if any person shall raise a seedling plum one-fourth larger, and equal or superior in flavor, more beautiful in its appearance, and more productive than the Green Gage, then the new variety would soon find its way into every good collection of plums. The same remarks will apply to the Newtown Pippin apple. The person who shall be so fortunate as to raise a seedling apple of equal flavor, better color, and a tree more thrifty and productive than the green Newtown Pippin, will have accomplished something worthy of record and a name. But cultivators, like young fond mothers, are apt to consider their production to be a "none-such;" time, alas! often convinces them of their mistake; and when too late, they find they have only deceived themselves.

.....
EFFECTS OF THE WINTER ON PLANTS.—In your March number you published a few remarks of mine on the experiments of Dr. EDMONDSON in acclimatizing the Camellia, in Maryland. I beg to inform you now of his success, through the last peculiar winter. The foliage of the exposed plants is more disfigured than in any previous season, owing, doubtless, to the extreme warm weather we had up to the 7th of January, which no doubt had started the sap. The sudden cold coming upon them in that state, (the thermometer falling as low as 4 degrees below zero, which 48 hours before had been ranging from 65 to 75 Fahrenheit, making a difference of many degrees.) This sudden check, I think, has been the sole cause of disfiguring the foliage, and many of the earliest flower buds. These Camellia plants are now in full bloom, but of course they are not in such perfection as last year. Many of the branches, however, which were covered with snow are not injured in the least. I noticed that one plant which was planted last November, in an open border where it was fully exposed to the hot sun, and had lost all its leaves, was opening its flowers; others again all destroyed. This has been with us an unusually severe winter on certain plants; of China roses, many varieties are killed to the ground, as well as that interesting Chinese shrub *Nandina domestica*. The wood of grape vines is, however, more perfect than I have found it for many seasons, owing to the fact that the wood was perfectly ripened in the autumn previous.

Cunninghamia lancifolia.—A large plant, put out by Dr. EDMONDSON, has stood well; it was covered with a box, partially open to the north, and I think this tree may prove hardy here.

Koelreuteria paniculata.—This tree in the month of June forms a splendid ornament. Its spikes of rich yellow flowers, covering the tree all over, has a charming effect on a lawn or pleasure garden, in the fall, covered with rich mahogany colored seed pods. [This tree is perfectly hardy with us, and we have no doubt will be so as far north as Canada.—Ed.]

Lilium lancifolium album, speciosa, japonicum,

and *longifolium*, are all perfectly hardy here—stood this last season here without any protection. The charming Double Japan Spiræa *S. prunifolia plena*, a plant 4 feet high, is now in full bud, and what a treasure it is. SIEBOLD deserves a monument from the horticulturists for introducing this plant and the Japan Lilies, independent of the other fine things with which he has enriched our collections.

Photinia glabra and *serrulata* prove hardy, and are now opening their flower buds.

Paulownia Imperialis.—Last year the flowers were all destroyed owing to a warm period in February. This year they are not injured. This tree, now pretty well known in our nurseries as the Paulownia, has a character of its own, differing from that of any other tree I have yet seen, which I think will make every real lover of ornamental gardening admire it. It ought to be found in all well improved pleasure grounds, and it only needs to be planted on a spacious lawn, with a dark green at a distance for a back ground, to be seen to great advantage. It forms its large clusters of flower-buds in the month of August; and as every branch terminates with a panicle of large flower-buds, it is an interesting sight even during the fall and winter, though these buds do not expand till the succeeding spring. I have a cluster now before me, 13 inches long, containing 14 smaller branches, covered with flower buds, all of a very curious formation. The flowers when open resemble the *Maurandia Barclayana*, or the Purple Fox Glove. The seed pods are like those of *Yucca filamentosa*. The seed is flat and slightly winged. [This tree has withstood a temperature of 12 degrees below zero at the north the past winter without injury.—Ed.]

Your readers in the north, some of them, may think that the climate of Maryland is very favorable to gardening. In some respects it is so, but not in all. The changes of temperature are very great. During the past winter, in the latter part of February, the winter broke up, and all March was very wet and cold, so much so as to prevent any person from working the ground unless in dry soil. This month has been very dry and warm. Last night we had a strong frost with high wind; ice half an inch thick in tubs; the fruit of peaches, cherries, plums, and strawberries, or rather, such as were in bloom, are all destroyed. *Magnolia purpurea*, *Sorlangiana*, *conspicua*, and some other varieties I have recently imported, were in their greatest splendor. Now all are destroyed. Yet the Camellia flowers, like those of *Pyrus japonica*, are not injured in the least. Sam'l Feast. Baltimore, April 16, 1849.

.....

COLOSSAL RHUBARB.—Dear Sir: For a few years past, I have planted several varieties of rhubarb in my garden, and among others *Myatt's Victoria* and the *Colossal*. After a thorough trial in my soil, I find *Downing's Colossal* is decidedly

superior to any other I have yet tried, both as to size and flavor. I think the public generally are not aware of its value. It was originated in Newburgh, N. Y., some ten years since, by Chas. Downing, Esq. Respectfully, *Henry Little, Bangor, Maine, April 3, 1849.* [We believe every one who has tried this rhubarb will agree with Col. LITTLE, that no variety yet originated will compare in size, or quality, with the *Colossal*. Its stalks are remarkably tender and succulent. Ed.]

....

FRUIT CULTURE AT THE SOUTH.—As your journal should be a record of all information upon the subject of horticulture, &c., I take the liberty of presenting to you some remarks that have appeared in the Southern Cultivator concerning fruits. I will add some views of mine, and attempt to be concise. A friend of mine writes that his want of success in fruits from the north, and, at the same time, his success with *creole* trees, induces a belief that imported trees will not do. A gentleman follows, and says he has tried all kinds of fruit trees; and that to succeed, we must rely upon native trees and selections. Many persons think that budded and grafted fruit will not succeed. Others think the fault is in pruning. Others, that cultivation will not do.

To all these I beg to reply. I have been a purchaser from time to time since 1832. I have budded, grafted, and layered. I dare not pretend to much knowledge; as in those matters, a long experience is required to give ordinary knowledge. But having tried all kinds of fruit trees, both foreign and native, both budded, grafted and seedlings, I trust I will not be deemed as being unwise if I give my opinions.

The past three years have been very unfavorable to fruit. More trees have been planted during this time than for any preceding ten or fifteen years, if we speak of improved fruits. I have seedlings, native varieties budded here; foreign varieties budded here; the same from the north; some pruned after your directions, others which a knife has never touched, and some pruned up to "bare poles,"—a stump five or six feet high before branching; some receiving a yearly culture, others occasional culture, others none at all. If the fault lay in the foreign, my seedlings and budded trees, from recent selections, should succeed; and so on, through all. But from some 1,000 or 1,200 peach trees, old enough to bear, I have not seen a peach per tree. I know of one orchard of budded and grafted fruit, that has succeeded fully except the past year. I have seen good seedling fruit, but there was no improved trees in those places to test. The question now follows, what is the cause? Is it owing to an overgrowth of tree or not? To want of the proper aliment?

I answer—it is owing to the *seasons*. And my reasons:

My orchards are upon good land—upon land similar in every respect to that which never failed up to 1846. The seasons have not been so re-

markable for cold, as they have been for fluctuations,—from "quite warm for the season," to "this is regular wintry weather for our country."* In consequence, the fruit buds have been injured so much that the fruit either dropped before it became as large as a marble, or grew until near ripening, then rotted. The tree, not producing a crop, grew amazingly, and thus added to the difficulty. A portion of my land manured with 100 bushels of cotton seed per acre yearly; a portion not manured for eight years.

Northern pear trees grow exceedingly slow; and so do some that are grafted south. I have trees of my own grafting, not one year old this day, that are larger than the parent trees, planted out before grafting the above here. This is owing to injury sustained on the voyage, and their having been worked on sucker stocks.

To begin from native fruits, would be as *backward* a business as for me to throw away my axes, ploughs, chains, harrows, whiffletrees, hoes, &c., and begin a thousand years ago.

We must examine our land, our mode of culture, our location, and the peculiar seasons, before we rashly attempt to thrust aside all the labors of our forefathers.

I believe we will succeed, after a while; but I could not say the favorite fruits of your country will be the favorite here. I am yearly adding to my collection, and feel every confidence that in a few years I shall succeed. I have now about 160 varieties of the pear, 55 or 60 upon quince, and about 35 varieties of the plum. How many of all these will be worthless here, time alone will show. To get 20 or 30 really choice will be enough; but we must try, in this new country, until we prove; and I am perhaps as simple as any one who will "try."

I have grown here a few pears and plums that will compare favorably with any section; and as to peaches, I am sure, an Early Tillotson, Emperor of Russia, Early York, Lemon Cling, Bergen's Yellow, Smock Late, that I have grown here, cannot be excelled anywhere. I have purchased fruit for two years in the Philadelphia market even at 12½ cents each; and the unprejudiced visitor from the north has agreed, and will agree with me in the comparison I have made. I am faithfully yours, *M. W. Philips, Edwards, Mississippi, February, 1849.*

* Allow me to state, in a note, the changes here within ten days.

A week ago, the weather was so favorable that maple trees put out, in some favored spots, leaves large enough to show green. Althia had leaves about as large as a dime. I saw red oak blooms. Post oak had buds swollen as large as a marrow-fat pea. Corn and cotton had germinated in the field. On the morning of the 16th, thermometer was at 22°, on the 17th at 24°, on the 18th I did not look; but the earth has not thawed in the shade all day. Will this sudden change not destroy all fruit buds that have swollen so as to receive colour of bloom? Several apricots show a few full blooms; several peach trees, also. Strawberries show many blooms. The blue, porcelain blue, white, pink and red Hyacinths are in bloom. Jonquils, Narcissus, and grape Hyacinths, (blue bells,) are also in bloom.

VINE BORDERS.—A. J. DOWNING—*Dear Sir:* I have just read, in the April number of the Horticulturist, an article from Mr. SAUNDERS, on the formation of vine borders, and am surprised to find he has aimed a shot or two at me. His batteries, however, are not in good position; for in one case his balls hit a third party, and in the other they take the same range as my own. My remarks, which it seems have drawn these from Mr. S., were contained in a review of Mr. ALLEN's work on vine culture; and it must be obvious to any reader that I was only endorsing his opinions, and, as I do not think he requires my aid to sustain his position, I shall offer no remarks on the subject which has so "perplexed" Mr. SAUNDERS, but merely refer him to Mr. ALLEN's book, where he will find the whole subject fully discussed. If that fails to satisfy him, I may give some testimony from my own experience. So much for the first shot which hits Mr. ALLEN instead of me. The second is aimed at the theory of fresh animal matter for manures, which he asserts, with much earnestness, must prove fatal to the roots of vines whenever it comes in contact with them. As I made the same assertion, in the most unqualified manner, I am happy to receive this testimony in corroboration; and in return, I am glad to assure Mr. SAUNDERS that I entirely agree with him as to the excellence of the materials he proposes for a vine border.

In conclusion, let me express the hope that Mr. S. will send a few bunches of such Black Hamburgh grapes as he describes—"well coloured, and weighing from four to six pounds each," to the next annual exhibition of the Pennsylvania or New-Jersey Horticultural Societies. I have been in the habit of attending them for years, and feel safe in assuring Mr. S. that such grapes would not only afford much gratification to horticulturists in this section, but would secure him a premium which would amply remunerate him. *A New-Jersey Subscriber.* April 13th, 1849.

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GOOSEBERRY CULTURE.—*Dear Sir:* The great pleasure I have derived by the perusal of your excellent periodical, and the desire to communicate to others what has proved so satisfactory to myself, in my endeavors to "rescue from obloquy" one of the more humble fruits, has induced me to offer the following, which, if you think worthy of notice, you may place before your readers: Early in the spring of 1844, I purchased at auction a dozen bushes of the best English varieties of gooseberry, stated to have been imported by KENRICK. These were set out in good rich soil. I also transplanted to the same situation several larger bushes, of a small red variety, received from a friend a year or two before. In common with cultivators of this fruit, in my neighborhood, I was year after year doomed to disappointment in the fruit produced. Although, from the bushes of the smaller variety, last named, I annually raised a few very fair and fine flavored berries, the former yielded

not an eatable fruit,—being, when about half grown, so covered with *mildew*, as is frequently the case in this climate, that a red variety could not be told from a white or green one.

Partly from information obtained from the Horticulturist and other sources, and partly from my own reflection, I was led to try early and close pruning, and the application of a mixture of unleached wood ashes and salt, to the surface under the bushes. Thus: about the 1st of March, and before the buds have much swollen, cut off the larger half, and in some cases two-thirds of the new growth, and when too thick, thin out some of the branches so as to give them handsome open heads. When the frost is fairly out, and the ground cleared off about the bushes, apply to each one quart of unleached wood ashes, and one table spoonful of coarse salt, well mixed; spread evenly on the ground under each bush, over a space of one foot or more in diameter, according to the size of the bushes. About midsummer, add half the quantity for renewal.

I claim nothing original in my experiment, but know that it has succeeded admirably the two last seasons,—affording me an abundance of fine fruit, entirely free from mildew, on all the bushes, which are of seven different varieties. My method of cultivation may not succeed in all situations and seasons; but if lovers of the gooseberry will try it, before discarding and throwing away their bushes, as some of my neighbors have done, I think they will be fully remunerated for their pains. *P. Salem, Mass., March 3, 1849.*

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COMPARATIVE TEMPERATURE.—*Mr. Downing:* The following meteorological observations, for 1848, may be somewhat interesting, as affording some opportunity to compare the temperature of this with other localities. Latitude being the same, there are other causes to influence the temperature, such as altitude, the proximity of extensive forests, rivers or other large bodies of water,—all of which influence so materially the growth of vegetation, as to render comparisons of notes, taken in different parts of the country, interesting to those who are desirous of a more general knowledge of localities, remote from their own.

Our latitude is about 41° 40',—very nearly the same as yours, at Newburgh.

January was a remarkably open month,—so mild as to appear more as March usually does. Roads were nearly settled on the 24th. Two inches of snow fell. Average temperature at 6 o'clock, morning, 24°; just before dark 27°. The highest temperature on the 26th; morning 45°, evening 49°. Lowest on the 10th; morning 8°, evening 9°.

February was also warm and very open, with but little rain. About two inches of snow fell. Average temperature, morning 22°, evening 28°. Highest temperature on the 20th; morning 41°, evening 37°.

March, before the middle, was cloudy and disa-

greable; after that, pleasant. About three inches of snow fell. The ground was sufficiently settled on the 22d to plant trees. On the 28th, peach buds were considerably swollen, and grass appeared quite green. Average temperature, morning 25°, evening 33°. Highest temperature was on the 30th; morning 36°, evening 65°. Lowest on the 4th; morning 0, evening 22°.

April was a cold and backward month. There were nine frosty nights. More snow fell on the 18th than at any one time during the winter. On the 19th, *mercury was at 31° in the shade at noon*. Peach blossoms (early kinds) nearly all destroyed. Cherry blossoms nearly half destroyed. Average temperature, morning 25°, evening 47°. Highest temperature on the 30th; morning 35°, evening 65°. Lowest on the 19th; morning 22°, evening 38°.

May was a warm, wet and growing month. On the 5th there was a severe hail storm. On the 6th, apple blossoms were fully expanded, aspens were nearly in full leaf, and grape-leaves coming out. Early scarlet strawberries—a small portion—ripe on the 31st. Average temperature, morning 51°, evening 61°. Highest temperature on the 29th; morning 67°, evening 64°. Lowest on the 14th; morning 32°, evening 54°.

June, until the 15th, was somewhat dry. After that time showers were abundant. On the 4th, George the Fourth and Cabbage roses, fully expanded. On the 17th, "American Red" raspberries fit to eat. On the 24th, common red cherry ripe. Average temperature, morning 55°, evening 64°. Highest on the 27th; morning 65°, evening 87°. Lowest on the 9th; morning 41°, evening 62°.

July was an extraordinarily wet month. There were 14 days in which more or less rain fell; the whole quantity was but little short of 12 inches. Grass and hay rotted in the field, and ripe wheat sprouted badly in the head. Average temperature, morning 58°, evening 66°. Lowest temperature on the 4th; morning 50°, evening 55°. Highest on the 27th; morning 67°, evening 68°.

August. The first part of the month somewhat wet. The week commencing on the 9th, and ending on the 16th, was the warmest week of the summer. Average temperature, morning 58°, evening 70°. The highest temperature was on the 15th; morning 69°, evening 79°. Lowest on the 7th; morning 50°, evening 62°.

September was cool and pleasant. The first frost was on the 22d, but very slight, as were all succeeding it this month. Average temperature, morning 44°, evening 54°. Highest temperature was on the 4th; morning 55°, evening 71°. Lowest on the 28th; morning 30°, evening 44°.

October was, on the whole, quite pleasant. Indian summer commenced on the 5th, and continued 10 days. Frosts were all light. Average temperature, morning 38°, evening 49°. Highest temperature on the 16th; morning 53°, evening

54°. Lowest on the 18th; morning 25°, evening 34°.

November was more unpleasant than usual here. There was not one fine day previous to the 17th. The first snow fell on the 8th, to the depth of two inches. Temperature through the month was much lower than usual. Average temperature, morning 23°, evening 34°. Highest temperature on the 29th; morning 44°, evening 40°. Lowest on the 9th; morning 10°, evening 24°.

December. The temperature through this month was quite equable and agreeable. Commenced snowing on the night of the 20th, and continued until morning of the 22d,—depth 20 inches; an unusual quantity here. On the 27th there was a fall of 3 inches more. Average temperature, morning 25°, evening 30°. Highest temperature was on the 19th; morning 52°, evening 36°. Lowest on the 13th; morning 13°, evening 34°.

The lowest degree of cold during the year was on the 4th of March, when the thermometer stood at zero at 6, A. M. The warmest day in the year was the 4th of August,—thermometer 90° at 12, M.

The growing season was remarkably favorable for luxuriance of vegetation, and cultivators were taxed severely to keep under the many trespassers which frequent and copious showers threw in the way.

The amount of rain during the year did not vary much from 55 inches; and nearly twice the quantity fell in July of any other month.

The following table, made by Geo. Duffield, of Detroit, shows the total of rain which fell in each of the eight years preceding 1848. It would not vary much from one made for this locality:

Total of rain in 1847, was.....	37.674
do 1846, do	53.334
do 1845, do	33.411
do 1844, do	45.654
do 1843, do	37.920
do 1842, do	40.089
do 1841, do	33.907
do 1840, do	36.842

Yours respectfully, *W. H. Scott. Toledo, Ohio, February, 20th, 1849.*

TO DESTROY MOLES.—*Dear Sir:* At your recommendation I obtained, last spring, in Philadelphia, a lot of Osage Orange plants for hedging. The ground was good and well prepared,—the plants carefully hoed and cultivated through the season. They made a fine growth and looked flourishing; but when I came to examine them this spring, I found that, in some places, the moles had destroyed nearly all the plants, by eating off the bark below the surface of the ground. Some of the plants they cut entirely off, and even followed up the small roots and eat them. The work of destruction they seem to have accomplished last fall, after we ceased to cultivate them, and the plants had stopped growing. If you, or some of your numerous corres-

pondents, cannot communicate something for our relief in this case, I am afraid we shall be under the necessity of abandoning the cultivation of the Osage Orange as a hedge plant, from this cause alone. We have some fine hedges of the Cockspur or New-Castle thorn; but their growth is slow, and the haws or seeds vegetate with difficulty. If we had some remedy for the moles, I am confident the Osage Orange would make a fence in one-half the time. I have never found the roots of any other plant so much eat by the moles as I have found my Osage Orange. I see it stated in an old vol. of the *American Farmer*, that ground planted with the Castor Oil Bean was avoided by moles.* Yours, *John Diehe. New-Castle co., Del., April 15, 1849.*

SPECIFIC FOOD FOR THE GRAPE.—*A. J. Downing, Esq.*: In the "Living Age," p. 246, the Paris correspondent mentions, among the reports of the Academy of Sciences, one from M. PERSOZ, relating a new method of cultivating the vine, by applying at one vine a particular manure, to increase the growth of the wood; and at another time, "substances which serve exclusively for the development of the fruit." The correspondent does not state the substances M. Persoz recommends. And it has occurred to me that, from among your numerous means for information, you might obtain the report, and lay its substance before the readers of the "Horticulturist." With much respect, *Geo. N. Chapin. Providence, February, 1849.*

See article in a preceding page of this number, on the culture of the grape.

VISITS TO GARDENS.—Having this day visited some horticultural establishments, in the vicinity of New-York, it has occurred to me that some rough notes respecting them might be interesting for the readers of the Horticulturist.

I first call attention to Mr. THORBURN's collection, at Astoria, Long-Island; Mr. T. having kindly shown me everything new and rare, showy and interesting, in his houses. Entering a long range of glass, the first thing to attract attention is a beautiful collection of roses, intermingled with Rhododendrons and other evergreen shrubs, among which I noticed a fine specimen of Norfolk Island

* We imagine that moles will only be found troublesome to hedges in very light sandy soil, where they can easily burrow.

We agree with our correspondent, that if they are, as he thinks, especially fond of the Osage Orange, some remedy must be found, in districts infested with this creature. We find the following recipe for destroying them, strongly recommended in a little work, entitled "Pests of the Farm," lately published in London:

"Take a quantity of fresh worms, put them in a wooden box with a small quantity of carbonate of barytes in powder, and let them remain for an hour or two; then find out the runs, where the moles leave the fences for the land; lay in every run five or six worms, and continue doing so as long as the worms are taken away by the moles. I was infested by moles before I used this remedy, which was about fifteen years since, but have never been injured since, by giving a little attention to them in the spring." *Ed.*

pine, (*Eutassa excelva*), about fifteen feet high. Adjacent to it is a beautiful specimen of *Cycas revoluta*, a palm-like plant, held in high estimation by the Japanese. The Japan soldiers are said to exist a long time on a small quantity of the Sago, procured from the cellular substance occupying the centre of their stems, and is so highly esteemed that it is contrary to the laws of Japan to take any of the trees out of the country. Mr. THORBURN seems to have more than ordinary veneration for his specimen, I suppose from the fact, (as he informed me,) that it once belonged to GENERAL WASHINGTON. There is, also, in the same house, the finest specimen of *Metrosideros lanceolata* that I ever beheld, bearing numberless heads of flowers in every state of development. On the front shelf, in an adjoining stove, is a handsome plant of *Nepenthes distillatoria*, trained to stakes, and several small pots of *Begonia hydrocotylifolia*, *Begonia manicata*, *Bilbergia*, and the curious *Dionaea muscipula* placed round it, all mantled with the pretty trailing mosses, *Lycopodium stoloniferum*, and *Lycopodium caesium*, so as to hide the pots entirely from view,—the whole having the effect of a miniature rockwork, carpeted with the loveliest green. I also observed two good specimens of *Cereus senilis*, commonly called the "Old Man's Cactus," from its shaggy gray hair-like spines, resembling an old man's beard. In the third division are large and handsome specimens of the genus *Camellia*; a genus whose dark green foliage, and the splendor of their blossoms, make them desirable in every collection. Among the many fine specimens here, was a handsome plant of the weeping pine of New-Zealand, (*Dacrydium cupressinum*), several feet high. In the fourth and last division are Camellias, and other tender plants, of various sizes from the grafts; and this department seems to be exclusively devoted to propagating.

To the left is the new "Rose-house," mentioned in a former number of the Horticulturist. The plants are clean and in good order, with, at the present moment, a tolerable bloom. I here observed a large plant of *Strelitzia regina*, bearing several stems of beautiful orange coloured flowers. To the right and left of the door is several plants of the well known *Richardia africana*, with its snow-white spathe and golden spadix, looking very handsome at this season, when the majority of plants are done blooming. On the pit wall was a pot of *Lobelia belladifolia*, with its light blue flowers hanging gracefully to the ground.

Exclusive of the plants here enumerated, there are several splendid and different coloured Azaleas, Rhododendrons, &c., intermixed with the other plants. As a whole, I found here a floral display and richness of foliage that do the establishment much credit. The stock of young plants is large and thrifty, mostly of the newest and rarest kinds. In front of the green-houses is a good specimen of *Magnolia conspicua*; and not-

withstanding the severity of the winter, its flowers will be expanded in a day or two. I first thought it had been covered during the severe frost; but upon inquiry, Mr. THORBURN informed me of the contrary. Being a stranger, Mr. T. asked me if I ever saw so fine a specimen of this Magnolia. He seemed not a little surprised on my remarking that I had seen one double its size in the grounds of the editor of the Horticulturist, at Newburgh. From this, I conjecture that large specimen plants of this Magnolia are rather scarce.

I next refer to the collection of A. P. CUMMINGS, Esq., at Williamsburgh, N. Y., who was equally courteous in showing me everything interesting in his well stocked houses; among which I noticed several fine Azaleas, Camellias and Rhododendrons. Good specimens of *Araucaria braziliensis*, and *Eutassa (Araucaria) excelsa*; also, a good specimen of *Casuarina equisetifolia*, a curious plant, native of Australia, and known to the aborigines by the peculiar name of "Beef-wood." A *Banksia serrata*, several *Acacias*, and many flowering plants of *Chorizema varium*, *polygallus*, and *Echeveria grandiflora*. Good flowering plants of *Burchellia capensis*, and a pretty Aristilochia. A good plant of *Ardesia crenulata*, about 2½ feet high. The contrast of its scarlet fruit with the dark green crenate foliage, had a pleasing effect. Among other novelties in this gentleman's collection, I saw good plants of the double purple and white Chinese Primrose,—varieties yet little known; the purple being seldom seen, even in Britain, the emporium of horticulture.

I must now conclude this little excursion, with alluding to a private collection, already noticed in the Horticulturist, but which cannot be too often cited as a model of good cultivation. I mean Mr. BECAR's unrivalled Camellias, which is indeed a grand one. Several of the varieties were still in bloom. His Azaleas have far surpassed any I had seen. Some of them are so loaded with flowers that scarcely a bit of their foliage could be seen. His collection of Calceolarias is large and healthy. Few of them are yet in flower, as a matter of course; but those which I saw in bloom were excellent sorts. I saw, also, in his collection a good plant of the pretty *Kennedia Maryata*. I am, sir, respectfully yours, M. C. Newburgh. April 6, 1849.

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FLORISTS' FLOWERS.—Dear Sir: I have been an attentive reader of the Horticulturist from its commencement, and have been much pleased with the several numbers as they have appeared. I was much interested in reading the treatises on the culture of the Geranium, Carnation and Pansy, and have been expecting to see other treatises occasionally appearing, such, for instance, as those on the culture of the Calceolaria, Fuchsia, Azalea indica, Ranunculus, Anemone, Picotee, Rose, Hyacinth, Tulip, Auricula, Polyanthus, &c. Such popular treatises would no doubt be read with

much interest by your readers generally. I hope you will favor your readers occasionally with one of them. By no one will they be perused with greater interest than by your obedient servant, Wm. Lunn. Montreal, March 26, 1849.

[We look to the several eminent florists among our readers to meet the wishes of our Canada subscriber. Ed.]

EFFECTS OF THE LATE WINTER.—Neither the Red nor Yellow Antwerp, the Franconia nor Fastolf raspberries will stand the winters with us; even the spurious Antwerp is sometimes injured. I find some of my young cherry trees injured this spring, especially the Elton, Downton, B. Tartarian, and Bigarreau. The Belle de Choisy appears as hardy as the Mayduke and pie cherry; they are affected on the south or southeast side of the tree, near the surface of the ground, in the form of a small brown patch, as if they had been scorched by fire. Would not grafting or budding standard high on the common Mazzard or Morello cherry prevent this, in a measure? The varieties that I alluded to as having suffered were budded quite low down. The Ross Phenix strawberry is an entire failure with us; it will not withstand our hot and dry summers. [It succeeds best at the north, and in a cool moist soil. Ed.] The peach crop will be very short with us this season.

If you shall deem my communication worthy of notice, I may trouble you again. Yours, respectfully, John Diehe. New-Castle co., Del.

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MAGNOLIA GRANDIFLORA.—In the Horticulturist for February last, (p. 375,) one of your correspondents, writing from Philadelphia, says—"Magnolia grandiflora, and many other evergreens of the southern states, grow well in Britain, yet they are tender and by no means hardy in the middle states." This might discourage some of your readers here; and as this grand tree is my especial favorite, and worthy of all care and attention, at any cost, for a good specimen tolerably grown is well worth one hundred dollars to any residence, permit me to state the following facts:

There are two specimens averaging twenty-five or thirty feet high, and of magnificent foliage, on the farm of OWEN SHERIDAN, ten miles north of Philadelphia, which flourish and flower superbly (the word superb is weak in conveying my meaning,) every season, and are the source of admiration to numerous visitors; while the flowers are plucked by baskets-full for the gratification of friends.

There was a similar specimen at the Landreth nurseries some years ago, which perfected its seeds, and some of its beautiful descendants are now flourishing in my possession in the open air. Unfortunately, it was not planted in a suitable soil, and was blown over by a gale and died. I have myself a specimen, removed from a Philadelphia garden, that is fifteen feet high; though it lost its top by the process, it has recovered its

vigor, and has bloomed since perfectly. There was too, till lately, a specimen at the Hamilton estate, below Philadelphia, planted by P^{UR}SH, Mr. H.'s gardener, which did well, till the place was neglected and went down, when some animal rubbed and partially injured it. There are many others smaller than the foregoing, bearing the present hard winter perfectly, as far as I yet perceive; and I mention them in the hope that no planter hereabout will neglect to procure one or two specimens, at whatever cost. Nothing that I know of could tend to make his heirs, if they have any rural appreciation themselves, so proud of their ancestors, as a good *Magnolia grandifolia*, a *Deodora*, and a *Cedar of Lebanon*.

The present is the season for removing trees, and getting together the variety, without which, planting is little less than useless. Young planters should not be discouraged because they cannot get together, in one season, all that they may want. Collecting even a moderate variety, in this country, is about as discouraging at first as forming a collection of coins or autographs. Good specimens of the most valuable trees are very scarce. For the best kinds there is little or no demand, because the mass of the people have not learned their names, or their value; consequently, the gardeners raise only the rapid growing and rapid selling. This is somewhat modified of late, and specimens are coming forward; but it is discouraging, when one wants a *Deodora Cedar*, to find only small plants of one foot high. I know of none others for sale. Let those who would benefit posterity plant these, however, and for immediate effect put in bushes, such as the filbert, the mist tree (or Venetian Sumac,) &c. &c. Filberts are excellent to hide a boundary, or to close the vista of a walk; and, moreover, produce really valuable fruit.

One of my favorite trees is the Siberian crab apple, which bears abundantly, and is very ornamental when loaded down with its delicate fruit, from which, too, may be prepared one of the most agreeable winter preserves. By no means forget the native holly, all the hardy *Rhododendrons*, the climbing plants named in the February Horticulturist, and especially the *Irish ivy*, which will make six or seven feet growth the first year, if well rooted when it is set out. The *Irish ivy* alone is worth cultivation to those who wish rapid results; and unfortunately it is not always to be had. I have rooted one thousand plants in a green-house this winter, and distributed them wherever my neighbors have the good taste to apply for them. But many persons will not appreciate the beautiful in nature; and one, otherwise well informed individual, has just said he had plenty of ivy, but did not know if it was evergreen or not! L^{OU}DON says there is a species of yellow ivy which, if planted with the green, would entwine among it, and appear at a little distance like flowers. See, in his *Arboretum Britannicum*, the article on "Ivy," some extracts from which

it would be appropriate to publish in the Horticulturist. My pen would never tire of these themes; but your columns are too valuable for long communications. Yours, J. J. S., Philadelphia, March 5, 1849.

ANSWERS TO CORRESPONDENTS.

EVERGREENS.—B. Thompson, (New-York.) These may be planted till the young shoots are grown from half an inch to an inch long. Although it is somewhat opposed to theory, yet many of the most successful planters in this climate prefer to wait in the spring till the buds are swollen, and the young shoots begin to put out. Choose a moist day, keep the roots wet, and preserve some earth about them whenever it is possible, and you will find no difficulty in removing evergreens.—W. W., (Baltimore.) As *Pinus cephalonica* has proved hardy in our grounds, there is no doubt of its doing well with you.—An Amateur, (Trenton, N. J.) The *Deodar cedar* is harder than the *Cedar of Lebanon*, and will bear a temperature of 12 degrees below 0 of Fah. without injury.

ANNUAL VINES.—A Lady, (New Haven.) The best and most rapid growing vines for your purpose, are *Cobea scandens*, (blue bell-shaped flowers.) *Pergularia odoratissima*, (white flowers,) *Tropaeolum canariense*, (yellow flowers,) *Maurandia Barclayana*, (purple,) and *M. lophospermum*, (pink flowers.) All these can be had in pots, of any of the leading florists. Turn them out in a rich border, and they will climb from 10 to 20 feet, and flower all the season. Among the annuals, the Cyprus vine, Scarlet and Morning glory, Orange Loasa, and Balsam pear are the best vines. Sow the seeds any time this month—the sooner the better.

FLORISTS' FLOWERS.—A Tyro, (New Bedford.) If you use chopped turf from an old pasture for the basis of your compost, enrich it with manure from an old hot-bed, and lighten it with silver sand, you will succeed so far as the soil is concerned.—R. B. W., (Philadelphia.) *Ranunculus* must not be planted in an open border, as they will not bear our blazing summer sun. They also want a cool, deep, rather moist, but well-drained site, and are, on the whole, by no means easy of culture in the United States, though we occasionally see very beautiful small collections.

BULBS.—I. C. W., (Weverton, Md.) Prepare a border for the hardy bulbs which do not succeed with you, by throwing out all the soil 20 inches deep, rejecting your clay subsoil, and filling up 8 inches deep with small stones. On the top of this place a foot of good, light, rich soil, in which plant the bulbs. The Double *Narcissus* needs an open exposure, so that the leaves may grow large, and mature fully; it will then bloom abundantly.

DRYING FRUITS.—W. S. Matthews, (Canton, Ala.) The flue in the German apparatus for drying prunes, is of the thickness of a common brick. This flue passes through the middle of the

oven, the compartments for drying the fruit being on each side. The trays slide on wooden bearers.

LAYING OUT GROUNDS.—*A New-York Subscriber.* If you will send us your address we will furnish you with the information you wish.

DISEASES OF FRUIT TREES.—*R. M., (Brooklyn.)* Your cherry trees are *hide-bound*. Read Prof. TURNER's article published in a late number; strip off the outer bark and the trees will recover. We have found the plum tree knots curable on large limbs by cutting out the affected part, and washing the wound over with a weak copperas water—half an oz. to two quarts of water.—*A Constant Reader, (Northampton, Mass.)* Your peach trees have the *yellow*s, for which as yet no remedy has been discovered. Dig them up and burn them, root and branch. Pruning a healthy peach tree after cutting a branch from one affected by this disease, will communicate it to the healthy one. Procure a fresh stock from some nursery where the disease is unknown—as it is in many places.—*A. B., (Orange Co.)* Your old pear trees have stopped bearing because they have completely exhausted the soil. Dig a trench 3 feet wide and 18 inches deep, all round the tree,

at a distance of five feet from the trunk; cart away the old soil, and fill up the trench with a mixture of sods, leached ashes, and bone-dust—using one bushel of the latter and six bushels of the former. It will speedily recover and bear good fruit again.

STRAWBERRIES.—*A Jerseyman.* The *Large Early Scarlet* is a sort that never fails to bear a good crop alone by itself, having an abundance of both pistils and stamens in the blossoms. *Burr's New Pine* is the best American Seedling variety that we have yet tasted. There are few more productive sorts for market than the *Hudson*. *Trench the soil two feet deep*, and bury your fresh manure deeply, and you will find no difficulty in getting good crops. The Hudson being a pistillate sort, a bed of the *Large Early Scarlet* or some other *staminate* variety should be planted near it to insure a crop. One-fourth staminate plants is a sufficiently large proportion.—“*Buffalo.*” Keen's Seedling is worthless for general cultivation in this country, as the plants burn up in summer, and “freeze out” in winter. *Black Prince* is the best substitute for it in this climate.

PENNSYLVANIA HORTICULTURAL SOCIETY.

The stated meeting of this society occurred on Tuesday evening, April 17, 1849,—the President in the chair.

On this occasion, the display was surpassingly fine. The great variety, number, and beauty of the specimens of plants, in full bloom, was the theme of the numerous visitors. The contributors of the designs of cut flowers, baskets and bouquets, evinced good taste and judgment. Of rarities among the fruits, were apricots, grapes, just taken from the vine, strawberries and barbadoo gooseberries; also, a number of seedling apples from various sources.

The premiums awarded were as follows:

By the Committee on Plants and Flowers.—For the best ten varieties of *Argemone*s, to Robert Buist; for the second best ten, to Ben Daniels, gardener to Caleb Cope. For the best ten everblooming roses, named varieties in pots, to John Sherwood. For the best six named varieties of *Hyacinths*, to Robert Buist; for the second best six, to Ben Daniels. For the best six varieties of *Pansies*, to Robert Kilvington; for the second best six, to Jas. Powell. For the best three named varieties of hot-house plants, in pots, to James Bisset, gardener to James Dundas; for the second best three, to the same. For the best three named varieties of green-house plants, in pots, to Robert Buist; for the second best three to Ben Daniels. For the most interesting collection of named plants, in pots, to Maurice Finn, gardener to John Lambert; for the second best collection, to James Bisset, gardener to Jas. Dundas; for the third best, to Ben Daniels. For the best display of indigenous plants, in pots, to Robert Kilvington. For the best design of cut flowers, to Ben Daniels; for the second best, to James Bisset, jun., gardener to Joseph Ripka. For the best basket of cut flowers, to Maurice Finn; for the second best, to Ben Daniels.

The committee awarded a special premium of one dollar, for a fine basket of cut flowers, to Peter Raabe; and took much pleasure in calling the attention of the society to some beautiful specimens of the *Souvenir de Malmaison Rose*, from the garden of Jos. Ripka, Manayunk; and also to a

very beautiful specimen of *Camellia japonica*, var. *Prattii*, from the collection of James Ritchie.

The Committee on Fruits beg leave to report, that they have noticed, with pleasure, many specimens of seedling apples:

No. 1. A large red apple, which they consider a good sprightly apple, and worthy of cultivation; from Mr. Howard, Delaware county, Pa.

No. 2. “*Fallen Walder*,” beautiful specimens, but dry; from Dr. Kittoe, Muncy, Pa.

No. 3. “*Spring Pippin*,” second quality; from H. N. Johnson, Germantown.

No. 4. “*Brandywine Pippin*,” good, and worthy of further trial; from John Lodge, near Wilmington, Del.

No. 5. “*Major*,” of second quality; from Dr. Kittoe.

No. 6. “*Water-melon*,” Montgomery county, wants character; deposited by A. W. Corson.

No. 7. Worthless; from Wilmington, Del.

The committee also noticed a dish of excellent strawberries, Breda apricots, grapes, and the fruit of the *Cereus Mallisoni*.

The Committee on Vegetables report, that they have awarded the following: For the best cucumbers, to Ben Daniels, gardener to C. Cope; for the second best, to Patrick Devine, gardener to Sam'l C. Ford. For the best cauliflowers, to James Leddy, gardener to Pierce Butler. For the best sea-kale, to Ben Daniels. For the best rhubarb, to Anthony Felten; for the second best, to Ben Daniels. For the best asparagus, to Isaac B. Baxter; for the second best, to Ben Daniels. For the best display, and for the second best display, by market gardeners, to Anthony Felten. For the best display, by amateurs, to Ben Daniels; for the second best, to Wm. Johns; for the third best, to Maurice Finn, gardener to John Lambert. The committee noticed four heads of very fine lettuce, by Pierce Butler's gardener.

A communication from JAMES RITCHIE was read, stating his success with a new remedy in destroying mildew, which is a weak solution of tobacco, syringing plants affected

therewith, and afterwards using pure water to remove the tobacco solution. Two applications effectually destroyed the mildew on plants affected with him.

Members Elected.—Messrs. Harry Ingersoll. H. W. Cleveland, Robert Forsyth, P. B. Mingle, James Redings, and John Kinmier.

OBJECTS EXHIBITED.—*Plants*.—By Ben Daniels, gardener to Caleb Cope, New Fuchsias, Exquisita, and Sir Henry Pottinger; new Pelargoniums, Pearl's Pompey, Rachel, Excelsa, Duchess of Saxe, sanguinarium, Beauty Supreme, and a table of standard varieties; also, Spirea lanceolata, Elbergia, from Mexico, Rondeletia speciosa, Pedilanthus carinatus, Euphorbia tetragona, E. horrida, Maxillaria crispa, Aschysanthus parasiticus, Mammillaria Wildiana, Calliolaria meteor, Mahonia odorata, Rhododendrum Cunninghami, a new white variety, Camellias, Primula sinensis, Azalea sinensis, seedling Cinerarias and Petunias.

By Robert Buist, Robert Scott, foreman, Azalea variegata, Cytisus racemosus, Fuchsia coronet, Pelargonium of varieties, Symmetry, Orion, Hebe, Rosy Circle, Blood Royal, Mrs. Smith, Helen Buist, Flash, Gauntlet, Emma Louisa, Witch, Vesta, Rosetta, Nonsuch, Conflagration, Gigantea, Life-guardsmen, Margaret, Anais Lannoxii, and a dozen Hyacinths.

By David Scott, gardener to Fred'k Lennig, Clivea nobilis, Spirea laciniifolia, Tritonia sp., Azalea coccinea, Camellia japonica, var. candidissima, Coreus Jenkinsonii, Cineraria Queen, Gloxinia speciosa celestina, G. maxima delicata, G. Menziesii, G. caulescens, and new G. Fifana, G. Teichlerii, G. alba sanguinea, and five seedlings.

By James Bisset, gardener to James Dundas, a table of Pelargonium,—very fine specimens of green-house and hot-house plants.

By Maurice Finn, gardener to John Lambert, a large collection of select green and hot-house plants.

By P. Raabe, fine Camellias, Azaleas, Hyacinths, Roses, etc. By John Sherwood, Roses of varieties,—Commandant, Fourier, Baron Prevost, Abbe Mioland, Madame Lafay, Coronne de Purple, La Graciosa, Bouquet de Flora, Melanie Cornu, Wm. Jess, and Celina.

By James McDonald, gardener to Miss Gratz, a table of beautiful Pelargonium, &c.

By Robert Kilvington, indigenous plants,—*Drosera filiformis*, *Schizaea pusilla*, *Caulophyllum thalictroides*, *Hepaticaria lobata*, *Anemone*, *Ferns*, etc. etc. and *Pansies*.

By James Powell, choice *Pansies*.

By Wm. Rottanbury, beautiful *Pansies*.

Designs and Bouquets.—By Ben Daniels, a design in form of an open temple, and beautiful basket of cut flowers.

By James Bisset, a large cone bouquet.

By James Bisset, jr., gardener to Jos. Ripka, a cone bouquet.

By Maurice Finn, a handsome basket of cut flowers.

By Peter Raabe, a neat basket of cut flowers.

By Robert Kilvington, hand bouquets.

Fruit.—By Ben Daniels, gardener to Caleb Cope, straw berries, var. Hovey's and Keene's Seedlings, Myatt's Eliza, and La Fayette Hautboy; grapes—White Sweetwater, and Rose Chasselas, and Breda apricots.

By John R. Brinckle, Barbadoes gooseberries,—the fruit of *Cereus Mallisonii*.

By John Perkins, apples,—several varieties.

Seedling Apples.—By Mr. Howard, Delaware county; Dr. Kittoe, Lycoming county; John Lodge, Del.; A. W. Corson, Montgomery county; Dr. Thomson, Wilmington; and H. N. Johnson, Germantown.

Vegetables.—By Ben Daniels, gardener to C. Cope, cucumbers,—Marshall's Seedling,—23 inches long, Prince Albert peas, mushrooms, three var. of peppers, lettuce, rhubarb, sea-kale, kidney beans, spinach, asparagus, radishes, potatoes; all out same day.

By Anthony Felten, a great variety of fine specimens.

By Wm. Johns, lettuce, radishes, etc.

By Isaac B. Baxter, asparagus, etc.

By James Leddy, gardener to Pierce Butler, cauliflowers and lettuce.

By James McDonald, gardener to Miss Gratz, lettuce and cucumbers.

By Patrick Devine, gardener to S. C. Ford, cucumbers.

By Maurice Finn, gardener to J. Lambert, a small collection.

THOS. P. JAMES,
Rec. Secretary.

MASSACHUSETTS HORTICULTURAL SOCIETY.

BUSINESS MEETINGS.

March 31, 1849.—President SAMUEL WALKER in the chair.

The Committee on Flowers recommended that a semi-annual exhibition of the society be held in June, commencing on the 19th, and terminating on the 23d; and it was voted to place \$50 at their disposal, to be awarded in premiums at said exhibition.

Voted, That a committee of three be appointed by the chair, to take into consideration the expediency of awarding to J. F. ALLEN, Esq., of Salem, a testimonial of their approbation and thanks, for his valuable contributions of green-house fruits, during their exhibitions of past seasons; and Messrs. I. S. Cabot, Cheever Newhall, and Eben'r Wight, were appointed that committee.

A letter was received from S. P. HILDRETH, Esq., of Marietta, Ohio, accompanied with a painting of several of the native fruits of that part of the country; and the thanks of the society were voted to Mr. Hildreth, and his communication ordered to be printed in Hovey's Magazine.

Alvah Kittredge of Roxbury, and E. E. Rice of Boston, were elected members of the society.

April 7th.—President SAMUEL WALKER in the chair.

Voted, That the thanks of the society be presented to W. C. BRINCKLE, M. D., of Philadelphia, for his generous contribution of scions of rare fruits; also, to A. H. ERNST, Esq., of Cincinnati, Ohio, for scions of new and rare fruit.

Voted, That the thanks of the society be presented by the Corresponding Secretary, in a complimentary letter, to SILAS DURKEE, M. D., of Boston, for his contribution of beautiful specimens of Prairie grass, for the use of the society.

On recommendation of the committee, appointed for that purpose, it was voted, that a piece of plate, of the value of \$25, be presented by the society to J. F. ALLEN, Esq., of Salem.

Voted, That the sum of \$200 be placed at the disposal of the Committee on the Library, for the increase of the library.

The following gentlemen were elected members: A. C. Bowditch, life; Wm. Underwood, T. R. Marvin, B. K. Bliss, and Rev'd T. M. Clarke, subscription.

E. C. R. WALKER,
Recording Secretary.



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AND

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"If you, or any man of taste, wish to have a fit of the blues, let him come to the village of —. I have just settled here; and all my ideas of rural beauty have been put to flight by what I see around me every day. Old wooden houses out of repair, and looking rickety and dejected; new wooden houses distressingly lean in their proportions, chalky white in their clap-boards, and *spinacky* green in their blinds. The church is absolutely hideous,—a long box of card-board, with a huge pepper-box on the top. There is not a tree in the streets; and if it were not for fields of refreshing verdure that surround the place, I should have the ophthalmia as well as the blue-devils. Is there no way of instilling some rudiments of taste into the minds of dwellers in remote country places?"

We beg our correspondent, from whose letter we quote the above paragraph, not to despair. There are always wise and good purposes hidden in the most common events of life; and we have no doubt Providence has sent *him* to the village of —, as an APOSTLE OF TASTE, to instil some ideas of beauty and fitness into the minds of its inhabitants.

That the aspect of a large part of our rural villages, out of New-England, is dis-

treassing to a man of taste, is undeniable. Not from want of means; for the inhabitants of these villages are thriving, industrious people, and poverty is very little known there. Not from want of materials; for both nature and the useful arts are ready to give them everything needful, to impart a cheerful, tasteful, and inviting aspect to their homes; but simply from a poverty of ideas, and a dormant sense of the enjoyment to be derived from orderly, tasteful and agreeable dwellings and streets, do these villages merit the condemnation of all men of taste and right feeling.

The first duty of an inhabitant of forlorn neighborhoods, like the village of —, is to use all possible influence to have the *streets planted with trees*. To plant trees, costs little trouble or expense to each property holder; and once planted, there is some assurance that, with the aid of time and nature, we can at least cast a graceful veil over the deformity of a country home, if we cannot wholly remodel its features. Indeed, a village whose streets are bare of trees, ought to be looked upon as in a condition not less pitiable than a community without a schoolmaster, or teacher of religion; for certain it is, when the affections are so dull, and the domestic virtues

so blunt, that men do not care how their own homes and villages look, they care very little for fulfilling any moral obligations not made compulsory by the strong arm of the law ; while, on the other hand, show us a Massachusetts village, adorned by its avenues of elms, and made tasteful by the affection of its inhabitants, and you also place before us the fact, that it is there where order, good character, and virtuous deportment most of all adorn the lives and daily conduct of its people.

Our correspondents who, like the one just quoted, are apostles of taste, must not be discouraged by lukewarmness and opposition on the part of the inhabitants of these GRACELESS VILLAGES. They must expect sneers and derision from the ignorant and prejudiced ; for, strange to say, poor human nature does not love to be shown that it is ignorant and prejudiced ; and men who would think a cow-shed good enough to live in, if only *their* wants were concerned, take pleasure in pronouncing every man a visionary whose ideas rise above the level of their own accustomed vision. But, as an offset to this, it should always be remembered that there are two great principles at the bottom of our national character, which the apostle of taste, in the most benighted GRACELESS VILLAGE, may safely count upon. One of these, is the *principle of imitation*, which will never allow a Yankee to be outdone by his neighbors ; and the other, the *principle of progress*, which will not allow him to stand still when he discovers that his neighbor has really made an improvement.

Begin, then, by planting the first half dozen trees in the public streets. "They will grow," as Sir Walter observed, "while you sleep ;" and, once fairly settled in their new congregation, so that they get the use of their arms, and especially of their tongues,

it is quite extraordinary what sermons they will preach to those dull and tasteless villagers. Not a breeze that blows, but you will hear these tongues of theirs, (which some look upon merely as *leaves*,) whispering the most eloquent appeals to any passer by. There are some, doubtless, whose auriculars are so obtuse that they do not understand this language of the trees ; but let even one of these walk home in a hot July day, when the sun that shines on the American continent has a face brighter than California gold, and if he does not return thanks devoutly for the cool shade of our half dozen trees, as he approaches them, and rests beneath their cool boughs, then is he a worse heathen than any piratical Malay of the Indian Ocean. But even such a man is sometimes convinced, by an appeal to the only chord that vibrates in the narrow compass of his soul,—that of utility,—when he sees with surprise a fine row of trees in a village, stretching out their leafy canopy as a barrier to a destructive fire, that otherwise would have crossed the street and burnt down the other half of the best houses in the village.

The next step to improve the GRACELESS VILLAGE, is to persuade some of those who are erecting new buildings, to adopt more tasteful models. And by this, we mean not necessarily what builders call a "fancy house," decorated with various ornaments that are supposed to give beauty to a cottage ; but rather to copy some design, or some other building, where good proportions, pleasing form, and fitness for the use intended, give the beauty sought for, without calling in the aid of ornaments, which may heighten but never create beauty. If you cannot find such a house ready built to copy from, procure works where such designs exist, or, still better, a rough and

cheap sketch from a competent architect, as a guide. Persuade your neighbor, who is about to build, that even if his house is to cost but \$600, there is no economy that he can practice in the expenditure of that sum, so indisputable, or which he will so completely realize the value of afterwards, as \$10 or \$20 worth of advice with a few pen or pencil marks to fix the ideas upon paper, from an architect of acknowledged taste and judgment. Whether the house is to look awkward and ugly, or whether it is to be comfortable and pleasing for years, all depend upon the *idea* of that house which previously exists in *somebody's mind*,—either architect, owner or mechanic,—whoever, in short, conceives what that house shall be before it becomes “a local habitation,” or has any name among other houses already born in the hitherto GRACELESS VILLAGE.

It is both surprising and pleasant, to one accustomed to watch the development of the human soul, to see the gradual but certain effect of building one, really good and tasteful house in a graceless village. Just as certain as there is a dormant spark of the love of beauty, which underlays all natures, extant in that village, so certain will it awaken at the sight of that house. You will hear nothing about it; or if you do, perhaps you may, at first, even hear all kinds of facetious comments on Mr. —’s new house. But next year you will find the old mode abandoned by him who builds a new house. He has a new idea; he strives to make his dwelling manifest it; and this process goes on, till, by-and-by, you wonder what new genius has so changed the aspect of this village, and turned its neglected, bare, and lanky streets into avenues of fine foliage, and streets of neat and tasteful houses.

It is an old adage, that “a cobbler’s

family has no shoes.” We are forced to call the adage up for an explanation of the curious fact, that in five villages out of six in the United States, there does not appear to have been room enough in which properly to lay out the streets or place the houses. Why, on a continent so broad that the mere public lands amount to an area of fifty acres for every man, woman, and child, in the commonwealth, there should not be found space sufficient to lay out country towns, so that the streets shall be wide enough for avenues, and the house-lots broad enough to allow sufficient trees and shrubbery to give a little privacy and seclusion, is one of the unexplained phenomena in the natural history of our continent, which, along with the boulders and glaciers, we leave to the learned and ingenious Professor AGASSIZ. Certain it is, our ancestors did not bring over this national trait from England; for in that small, and yet great kingdom, not larger than one of our largest states, there is one city—London—which has more acres devoted to *public parks*, than can be numbered for this purpose in all America.

It may appear too soon to talk of village greens, and village squares, or small parks planted with trees, and open to the common enjoyment of the inhabitants, in the case of GRACELESS VILLAGES, where there is not yet a shade tree standing in one of the streets. But this will come gradually; and all the sooner, just in proportion as the apostles of taste multiply in various parts of the country. Persons interested in these improvements, and who are not aware of what has been done in some parts of New-England, should immediately visit New-Haven and Springfield. The former city is a bower of elms; and the inhabitants who now walk beneath spacious avenues, of this finest of American

trees, speak with gratitude of the energy, public spirit and taste of the late Mr. HILLHOUSE, who was the great apostle of taste for that city, years ago, when the streets were as bare as those of the most graceless village in the land. And what stranger has passed through Springfield, and not recognized immediately a superior spirit in the place, which long since suggested and planted the pretty little square which now ornaments the town?

But we should be doing injustice to the principle of progress, to which we have already referred, if we did not mention here the signs of the times, which we have lately noticed; signs that prove the spirit of rural improvement is fairly awake over this broad continent. We have received accounts, within the last month, of the doings of *ornamental tree associations*, lately formed in five different states, from New-Hampshire to Tennessee.* The object of these associations is to do precisely what nobody in particular thinks it his business to do; that is, to rouse the public mind to the importance of embellishing the streets of towns and villages, and to induce everybody to plant trees in front of his own premises.

While we are writing this, we have received the printed report of one of these associations,—the *Rockingham Farmer's Club*, of Exeter, New-Hampshire. The whole report is so much to the point, that we republish it entire in our Domestic Notices of the month; but there is so much earnest enthusiasm in the first paragraph of the report, and it is so entirely apposite to our present remarks, that we must also introduce it here:

“Why are not the streets of all our vil-

* We cannot deny ourselves the pleasure of commending the public spirit of a gentleman in one of the villages in western New-York, (see our last No., p. 533,) who, by offering a bounty for all trees planted in the village where he lives, has induced many to set about the work in good earnest.

lages shaded and adorned with trees? Why are so many of our dwellings still unprotected from the burning heat of summer, and the ‘pelting of the pitiless storms’ of winter? Is it because in New-England hearts, hurried and pressed as they are by care and business, there is no just appreciation of the importance of the subject? Or is it that failure in the attempt, which almost every man has made, once in his life, in this way to ornament his home, has led many to the belief that there is some mystery, passing the comprehension of common men, about this matter of transplanting trees? The answer may be found, we apprehend, partly in each of the reasons suggested. Ask your neighbor why he has not more trees about his home, and he will tell you that they are of no great *use*, and besides, that it is very difficult to make them grow; that he has tried it once or twice, and they have all died. Now these, the common reasons, are both ill founded. It *is* of *use* for every man to surround himself with objects of interest, to cultivate a taste for the beautiful in all things, and especially in the works of nature. It is of use for every family to have a *home*, a pleasant, happy home, hallowed by purifying influences. It *is* of use, that every child should be educated, not only in sciences, and arts, and *dead* languages, but that his affections and his *taste* should be developed and refined; that the book of nature should be laid open to him; and that he should learn to read her language in the flower and the leaf, written everywhere, in the valley and on the hill-side, and hear it in the songs of birds, and the murmuring of the forest. If you would keep pure the heart of your child, and make his youth innocent and happy, surround him with objects of interest and beauty at home. If you would prevent a restless spirit, if you

would save him from that lowest species of idolatry, 'the love of money,' and teach him to 'love what is lovely,' adorn your dwellings, your places of worship, your school-houses, your streets and public squares, with trees and hedges, and lawns and flowers, so that his heart may early and ever be impressed with the love of him who made them all." * * * *

What more can we add to this eloquent appeal from the committee of a farmers' club in a village of New-Hampshire? Only to entreat other farmers' clubs to go and do

likewise; other ornamental tree societies to carry on the good work of adorning the country; other apostles of taste not to be discouraged, but to be unceasing in their efforts, till they see the clouds of ignorance and prejudice dispersing; and, finally, all who live in the country and have an affection for it, to take hold of this good work of rural improvement, till not a GRACELESS VILLAGE can be found from the Penobscot to the Rio Grande, or a man of intelligence who is not ashamed to be found living in such a village.

A CHAPTER ON NEW PEARS AND PEAR CULTURE.

BY THOMAS RIVERS, SAWBRIDGEWORTH, ENGLAND.

A. J. DOWNING, Esq.—*My Dear Sir*: The weather is cold and unusually unpleasant for out of door occupations, generally so pressing at this season; and so I have taken pen in hand to give you a little gossip about gardening matters.

And first, John Bull like, let me tell you about the weather. We had an admirable winter,—no snow, and April weather in December, the greater part of January, (only a short interval of frost—lowest 17 to 15 degrees below freezing,) and all February; March, mild and dry, and this month cold, stormy and disagreeable. On the morning of the 18th inst., after a night of snow storms with violent wind, my thermometer registered 19 to 13 degrees of frost; (it was suspended six feet from the ground, on the north side of a tree, fully exposed.) Our plum trees were white with bloom, and many of our pears, such as Louise Bonne de Jersey, Beurré d'Amanlis and others. They are now brown, and I fear the crop is gone. Beurré de Capiaumont is much later in unfolding its blos-

soms; so that of that and a few others we have hopes. But a frost, even when the bloom is not expanded, is generally fatal to pears. Their blossoms expand, and they look well; but instead of setting their fruit, it all drops at the critical moment. Last year, on the 27th of this month, we had a hoar frost, but the thermometer only registered 27. The pears were nearly all in full bloom; but although the frost was so slight, nearly all were destroyed. My experience, as to new varieties, is therefore very limited. I will however give you, from memory, a few notes on new pears,—objects, as I am aware, of great interest in your country.

Josephine de Malines. I ate my last specimen of this (I had only two,) the 28th of February; it was fully ripe, melting and sugary, with a peculiar delicious flavor, such as I never before tasted in any pear; not musky, or that flavor generally called "perfumed," but something quite *sui generis*; to a certainty, this will prove one of our very finest pears. In appearance, it is

much like a middle sized Passe Colmar. The tree grows freely on the quince, but does not bear till three or four years old. This, as is now well known, was raised *by chance*, by the late Major ESPEREN, of Malines.

Belle Après Noël. A chance pear, raised by the same gentleman. It ripened in January. A moderate sized, good, melting pear, i. e., a first rate pear.

Bergamotte d'Esperen. Ripened in March. Size third rate. Bergamot shaped. Flavor inferior. This pear, I have since learned, varies much in character, and requires a warm rich soil, and a warm season; when it is first rate, and keeps till April and May.

Beurré Bretonnean, (Esperen's.) I have real pleasure in telling you all I know about this truly valuable pear. I have two specimens only; in shape and appearance they are much like *Beurré Diel*, and in size about equal to a second or third sized pear of that sort; so that it is of a good size, although not No. 1. Technically, it is oval, or slightly turbinated. But the terms in general use, in my opinion, fail to give a correct idea of the shape of any pear, unless its characters are very strongly marked. On looking at my specimens to-day, kept on a shelf in a dry airy cellar, each wrapped in three or four folds of a piece of newspaper, I found them fine, and likely, in all appearance, to keep a month or six weeks longer. But as I was writing you this *pear gossip*, and felt anxious to know something about a pear so handsome, (colour yellow, thickly—*very thickly* dotted with russet spots,) I could not help scooping out a taster. To my great delight, I found it a genuine melting pear,—rich, sugary and soft, *approaching* only to ripeness. I should calculate that it will be fully ripe about the middle of next month.

Now when I looked round my fruit shelves, and found this the only melting pear left, (for pears in this country, in spite of the cloudy, cool, *unripening* summer of 1848, nearly all ripened prematurely,—*Beurré de Rance* in January; *Ne Plus Meuris* in March, instead of April, as usual, etc. etc.,) that this new variety should even surpass the description I had with it. The tree is remarkably hardy, and very thorny; it does not grow when grafted on the quince, unless “double-worked,” and then but slowly, at least at present; but it is so new that one can scarcely describe what it will do. I have no doubt that, in due time, we shall find these “refractory” pears, which require double-working to make them take kindly to the quince, will also require to have a proper *kind* of pear on which to double-work them.

Susette de Bavay, (Esperen,) of which I have no specimens, I have every reason to believe, will prove a late pear, equally as valuable as the preceding. The readers of the Horticulturist should know that *Glout Morceau* has been sent out for this pear; it was, I think, in 1845, that a well known nurseryman in Belgium, professed to have all the pears raised by the late Major ESPEREN to dispose of. I received from him the following: *Susette de Bavay*, *Beurré Lombard*, and *Beurré d'Esperen*, all of which proved to be *Glout Morceau*. The true *Susette de Bavay* has shoots of a light greenish brown, entirely thornless; and the tree is so inclined to the pyramidal shape, that it will form a handsome close pyramid, almost without attention. All the above, I understand, were raised from seed by chance, i. e., seeds of good pears were sown without any attention to impregnation, or going through two or three generations. What a comment thus offers itself on the fanciful theory of VAN MONS; and

what encouragement for us all to go and do likewise!

You will see in the "Miniature Fruit Garden," which I now send you, allusion made to a seedling from the Easter Beurré. My specimen ripened this season towards the end of February. It is almost more than melting. Mr. THOMPSON writes me, that although "not quite so sugary as its parent, it is a first rate late pear." The parent tree is the thorniest, ugliest, vagabondish looking tree you ever saw.

Although time has tinted me with sober grey, I am still annually raising seedlings. My mode of management is perhaps original, and may amuse you.

To raise late pears is my grand object; and to effect this, I take pips from Beurré de Rance, Beurré d'Arenberg, Fortunée, Ne Plus Meuris, Winter Nelis, Passe Colmar, &c. These are sown in seed pans, and placed in gentle heat under glass. They soon spring up; and as soon as five or six leaves are formed, they are placed singly in small pots, then shifted into larger pots, and placed on a gentle hot-bed in the open air. Last year, with this mode of culture, I obtained a growth of two feet, and a thickness equal to a large quill. Each sort is kept carefully named and labelled, as follows: "from Passe Colmar," "from Beurré d'Arenberg," &c. This spring they have been planted in rows, thus: No. 1, a seedling; No. 2, a pear, worked on a quince; No. 3, a seedling; No. 4, a pear, worked on a quince, and so on, through the row. The tops of the seedlings were cut off in January, and they have been recently grafted, commencing with No. 1, which is grafted on No. 2; No. 3 on No. 4, and so on, through the row. Each sort has its label as above; for of some such as the Ne Plus Meuris, there

are twenty or thirty which follow each other regularly in the row. Now by this method great interest is created, as they are double-worked, and I trust will soon be in bearing. In the first place, the parent tree will always be known; and the difference in the time of bearing between the seedling and the graft from it, will be accurately ascertained. This, to me, is an object of great moment; for I do not remember ever seeing or reading anything relating to it.

I hope, D. V., or, perhaps, I had better say, under God's blessing, to solve this very interesting horticultural problem.

I forgot to say, that I prefer to take the pips (seeds) from fruit gathered from trees standing *isolated*. The race is then more pure; and I observe that some varieties produce seedlings bearing much resemblance to their parents in their habits. This is particularly apparent in those raised from Ne Plus Meuris. By the way, do you know that *our* Ne Plus Meuris is almost, or quite, unknown on the Continent? Both in France and Belgium, Beurré d'Anjou, an excellent pear, but not nearly so late, bears that name.

Seedlings from Beurré de Rance vary in a most extraordinary manner. Some are very delicate and slender; some robust and with large leaves; others covered with thorns. Those from Passe Colmar seem to bear a close resemblance to their parent, as do those from *Fortunée* and *Beurré d'Arenberg*. If the late Mr. KNIGHT had crossed some of these fine pears with such lasting pears as Leon Le Clerc, de Laval, and other long keeping baking pears, how rich we should have been. This is a field still open. Mr. KNIGHT employed parents but ill adapted to produce good results; and thus, after years of experiment, only gave us one pear really fine and good,—the

Monarch.* This is "pear gossip;" therefore I am privileged to ramble. A new pear:

Beurré Goubault bore fruit here last season. It is a very handsome Doyenné-like pear, about the size of Doyenné Blanc, with a smooth, shining, greenish-yellow skin; flesh exceedingly melting, sugary, and good. Ripe in September.

Are you aware that *Colmar Charney*, which I saw in France three or four years since eaten in autumn, and which was pointed out to me as a very fine late pear, proves to be the *Amrial*, or *Arbre Courbé* of Van Mons,—an excellent October pear? *St. Marc* is *Urbaniste*. For two seasons I did not detect this, owing to the fruit of one being from a tree on the quince, the other from a tree on the pear stock. We nurserymen, as soon as we detect an error, ought to "make a clean breast and confess."

Episcopal is also, I strongly suspect, only *Fortunée*. From my trees, the fruit of the former was green; of the latter, covered with russet; but the leaves and shoots of the young trees made me look more closely into the matter. This last year the latter was excellent,—nearly as good as *Beurré d'Aremberg*, and kept sound and good till June. In the south, with you, this will, I think, prove worthy of extensive cultivation.

Crassane d'Hiver, (Bruneau,) or *Beurré Bruneau*; is a handsome and delicious pear. Form roundish; size No. 2. My specimens ripened towards the end of last March. They were melting, with a very high vinous perfumed flavor, and were delicious.

Mr. WILLIAMS, of Pitmaston, has raised a new *Winter* Gansell's Bergamot. I en-

* Of which, strange to say, from causes perfectly unexplained as yet, not a single *fine* flavored specimen has yet been grown in America. Ed.

close his description.* This will, I think, prove something out of the common way.

Your orchardists ought to know one of the most profitable pears they can plant,—the *Colmar d'Été*, (or *Colmar Prince*, and *Colmar d'Automne*; for such are its synonyms.) It is one of the most vigorous growers of all pears on the quince, to which it seems to unite itself without the usual swelling over, at the junction of the graft with the stock. Its bearing qualities are, to quote *Dominie Sampson*, prodigious. The fruit hangs in clusters, like, to use a rural expression, "ropes of onions." I know not why this pear should be called a *Colmar*. It has not the least family resemblance to that race. It is of the second size, rather long, something like the *Jargonelle*, yellowish-green, with red next the sun; *very* juicy and refreshing, but not melting, neither is it a breaking pear; still, it is very agreeable, and likely to be popular, as it bears carriage well. It has ripened here, these two last seasons, about the end of September.

Among the pears of the late M. ESPEREN, and likely to prove of much value, is the *Cassante de Mars*. This was originally named by him *Bonne de Malines*; but on finding that name a well known synonym of the *Winter Nelis*, it was changed to the above, which is very expressive of its quality. For in March, it is hard and breaking; but if wrapped in paper and kept carefully, it may be preserved till June, and even July. It then becomes soft, perfumed, and very agreeable, like *Fortunée* and other late pears. It cannot always be preserved; for in some seasons, at least in this country, the hardiest and latest pears will ripen prematurely. We shall perhaps one day know the reason of this variation. I think I have generally noticed that when

* Which we will give in our next. Ed.

our summers have been cool and unripening, our pears have ripened prematurely.

I hope this season to hear from you, respecting the identity of *Beurré d'Aremberg* with *Orpheline d'Engheim*,—the *Soldat Laboureur* of France. With me, the trees are most distinct, and remain so, whether young or old, on the quince or on the pear, in all soils, and in all situations. The fruit of the former, with me, is generally a trifle smaller; but it is in its shoots and general habit that it differs so much. Its shoots are of a darker brown, always thorny, its leaves more pointed, and smaller than the latter. When in Belgium, in 1847, I found two pears there,—one called *Orpheline d'Engheim*, the other *Beurré d'Aremberg*. I imported both, and find them exactly identical with those I have for some years cultivated.

My *Beurré d'Aremberg* I received from the Horticultural Society of London about fifteen years ago; and *Orpheline d'Engheim* I received from Van Mons about the same period, under the name of *Beurré d'Aremberg*. Finding it different to that which I possessed, I distinguished it as "*Beurré d'Aremberg*, (Van Mons,)" in my catalogue for several years. I then found that the *Soldat Laboureur* of the French, and *Orpheline d'Engheim* of the Belgians, were the same; and I may also add that the pear "*Vrai Aremberg*" is the same. In the English nurseries, both varieties are cultivated, mixed generally, under the name *Beurré d'Aremberg*.

You will smile when I tell you that, out of my collection of nearly 1000 sorts of pears, I cultivate for profit, i. e., for their fruit, to send to Covent Garden Market, four, viz., *Williams' Bon Chretien*, (your Bartlett,) *Beurré d'Amanlis*, *Beurré Capiaumont*, and *Louise Bonne de Jer-*

sey.* Of the first, I have about 500 bearing trees, from five to twenty-five years old, on the pear stock. Of the second, about the same number, on the quince, as pyramids. This latter does admirably on the quince; and an orchard of pyramids would be very profitable. (Let some of your young cultivators recollect this.) Of the third, about 2,500 fine trees, from five to fifteen years old. They are beautiful trees, and perfect pyramids, growing so naturally, with but very slight attention to shortening their side shoots. Trees of this kind are all on pear stocks. Lastly, I have 2,500 trees growing in my orchard, of *Louise Bonne de Jersey*, all on the quince. These are three to six years old, all pyramids, full of blossom, and charming trees. What a comfort, that we have no pear blights in this country, no frozen sap, etc. A pear tree, once well planted here, progresses not rapidly, but surely. I find that my trees of *Beurré Capiaumont*, ten years old, on pear stocks, make, annually, shoots from twelve to fifteen inches in length. *Louise Bonne de Jersey*, on quince stocks, five years old, as nearly as possible the same annual growth. These trees are annually covered with blossoms, and give fine crops. It may, perhaps, assist some of your young cultivators if I give, in a few words, the best mode of combining a pear orchard with a nursery or kitchen garden. I think one or two of your countrymen have already taken notes of it, but perhaps not.

I purchased, some few years ago, a considerable quantity of freehold land; and not feeling sure that the demand for roses and ornamental shrubs would continue, I resolved to plant pear trees, and thus have two strings to my bow. I commenced, by purchasing all the old and overgrown trees

* How exactly this corroborates the advice we gave to orchardists, as contrasted with amateurs. (See leader, in our last March number.) Ed.

I could find in the London nurseries. Many of them were as stout as the small of a man's leg, and seven to eight years old. These were planted in rows from N. E. to S. W., 20 feet row from row, and 10 feet apart in the rows,—a path 2 feet wide on N. W. side of row, and border 18 feet wide. After remaining one season, these were cut down and grafted,—half the trees as standards, and half as half-standards, regularly alternating in the rows. These are all Beurré Capiaumont, and most charming trees, just ten years old. The half-standards are finer trees, and much handsomer than the full standards.

Experience soon told me that 20 feet, row from row, is not quite enough. The border for cultivation is too narrow. In my next plantation, I planted my rows 24 feet apart. This is of *Louise Bonne de Jersey*, as pyramids on the quince. They are only *five feet* apart in the rows; so that they will soon form a perfect barrier to the N. W. wind. They have regular *summer pinching*, &c. &c., to keep them in a nice pyramidal shape. A path 2 feet wide is on the N. W. side of each row; and a border for young trees in rows, &c. &c., 22 feet wide.* This plantation of Louise Bonne pears contains 2,500 trees. The effect is admirable. The profit is, and will be, very great. By having the trees N. E. to S. W., you will at once see that the trees give but little shade; the path on N. W. side of row is the only part much shaded. [In this climate, on the contrary, shade for the borders is desirable. ED.] The soil is a hazel, friable loam, from eighteen inches to two feet in depth, under which is a friable white clay, full of chalk stones. This gives a yellow tinge to the leaves of trees, when

too near the surface. Under the white clay is sand; so that this soil is never too wet, and never too dry,—just the happy medium for pears. I may observe, that although the soil and climate, in the valley of the Thames, is much more favorable than it is here for many kinds of pears, yet the Beurré Capiaumont is much inferior. There, it is covered with russet, and is of a greenish yellow. Here, it is bright scarlet and gold, and really a superb pear. The Louise Bonne, on the quince, is equally fine. All those who intend to grow pears for supplying the markets, must watch them carefully. With what a large portion of my life has my experience been bought. Listen, and I will tell you some of my trials. Easter Beurré I thought a splendid pear, and one that must always sell well. I grafted three to four hundred fine trees, purchased of the nurserymen, as before stated. The grafts grew beautifully, bloomed bountifully, bore a fine fruit, which *was hard, and never ripened*. After seven years' trial, half were grafted with Capiaumont, (all right,) the remainder with Knight's Winter Crassane, a vile pear for the market. It bears abundantly, but has no flavor or reputation. These trees are this spring grafted with B. Capiaumont.

The self same history, (of years wasted,) appertains to Beurré de Rance, Beurré Diel, Hacons' Incomparable, Althorpe Crassane, Knights' Monarch,—(I suffered 150 fine trees of the thorny, spurious sort, first sent out by the Horticultural Society, to reach the age of ten years before I would re-graft them;) Summer Franc Real, Bezi de Caissoy, Passe Colmar. None of these pears, I found, would *pay*; and so they are all grafted with B. Capiaumont. In this country, the *million* seem to buy pears freely in the *autumn* only; and, therefore, too few sorts can scarcely be grown. To some of your

* When the trees increase in bulk, I shall have a path, three feet wide on *each side* of the row. This will leave a border in the centre 18 feet wide; a most eligible site for young trees, or other crops.

young cultivators, I can also give the result of my experience as a nurseryman. Autumn pears, such as I have named, are all gathered and sold *before the tree business begins*.

I have 150 fine trees of *Marie Louise*, just twenty years old. They are, *as usual*, full of *blossom*; but it is five years since I had a crop, which is also the case in the pear gardens near London. I am, dear sir, yours truly,

THO'S RIVERS.

Sawbridgeworth, Herts, England, April 26, 1840.

[We commend the foregoing most valuable article to the careful perusal of all our pomological readers. Mr. RIVERS is not only the most extensive grower of *fruit trees* in England, but he is also one of the most accomplished English pomologists; and, as our readers will see, has had not a little experience in growing fruit for market. ED.]

THE EFFECTS IN LANDSCAPE OF VARIOUS COMMON TREES.

BY W. LENOX, MASSACHUSETTS.

I wish to enter a special plea in favor of that much abused tree, the *Lombardy Poplar*. It is the most formal of deciduous trees, and, therefore, the most effective when properly used, and the worst when abused. When the planting of poplars was the rage many years since, it is no wonder that when the long lines of monotonous trees sprang up all over the country, people got tired of them, and cut them all down. But here and there a single fine tree or two was spared. In this part of the country there are half a dozen of these trees in conspicuous situations, that are landmarks in the landscape, towering with their green spires above the rounded forms of the other trees, and fixing the eye at the distance of miles, by an irresistible charm. A single poplar, if a thrifty and vigorous tree, is never out of place. It supplies, as no other tree can, the want of perpendicular forms in the level or rounded lines of our landscapes. The same quality that makes to the eye the hidden charm of castle and crag, viz., *perpendicularity*, is possessed by this tower of foliage. When backed or supported by other trees, and especially if water in front be added, as on

the shore of a river, three poplar trees, of different heights, produce a magically picturesque effect; the sketcher cannot go by them without opening his portfolio.

Among our native trees, many that are formal when young, acquire with age and exposure a peculiarly picturesque appearance. The White Pine, when growing in exposed situations, becomes very stocky, and frequently branched and spreading. Its effect is so beautiful in this form, that I have often thought of cutting off the leading shoots of some fine young trees, to cause them to branch. Thrifty pine trees, in open ground, that lose their leading shoots at ten or fifteen feet from the ground, frequently make the most beautiful spreading trees.

The greatest beauty of the *Hemlock* is in its youth, and in masses or clumps; the Pine, on the contrary, requiring much room, or it will grow slender and throw out no side branches. The Hemlock seems to grow the more thrifty the more it is crowded. Twenty young trees will unite into one impenetrable mass of verdure. As they grow large the smaller die out, and the large trees form the densest shade

of our forest,—so dark that no underwoods grow beneath them. The greatest beauty of the young Hemlock may be seen where they spring up by thousands in our open pastures, always arranging themselves in groups that no art could mend. I think the finest large Hemlocks I have noticed were on a mountain top, where a small number had been left by the wood-cutters. These trees, dwarfed by the bleak mountain air, had stems of great thickness, surmounted by an unusual breadth of the thickest dark green foliage. They produced that effect of breadth and massive-ness usually wanting in our forest trees.

The *Fir Balsam*, when of large size and in open ground, is sometimes of remarkable beauty. The lower branches, if they remain thrifty, droop beautifully.

The *Larch* also requires room and age to develop its beauties. I think it is our usual fault in planting, that we plant too much in groups, for immediate effect, and so rarely see the greatest beauty our trees might attain. Also, we do not take pains enough to have our trees branch low, which is essential to produce massive trees, and massive effects. A trunk that branches at six or eight feet from the ground, can bear a vastly greater weight than one of the same size that is twice that height; and nature always follows the hint. When the trunk is short, the main limbs become subordinate trunks, and acquire a greater size than they could maintain on a tall trunk.

To return to individual sorts. The *Elm*, even when thrifty, often grows lanky and slender, and not sufficiently furnished with branches. If the principal part of the top be cut out low down, in healthy trees, even of large size, it seems to produce a thicker habit and vigorous growth. In one instance, a neighbor informs me that he

cut two cords of wood from the centre of an Elm, some forty years ago. This tree is the largest and finest in the neighborhood; and though the work was roughly done, shows no signs of decay. Another tree, about forty years of age, has so thick, beautiful, and regular a head, that it is universally remarked. This, I have been told, was produced in the same manner.

The *Birch*, Yellow and White, single trees on the edge of an evergreen wood, produce a charming effect of contrast.

The *Maple*. Its form is too regular usually to produce single standard trees, comparing with the Oaks, Chestnuts, and many others; but it forms the most beautiful groups. The *White Ash* changes in autumn to a deep slaty purple,—so remarkable among the gaudy colours of the Maple, that the eye at once detects a single tree on a mountain side. I would always plant a single tree in the groups of Maple.

To produce the most beautiful effects of autumn tints in a plantation, the pure lemon yellow of the Yellow Birch, and the dark green of the Hemlock, must no more be omitted than the scarlet and russet of Maple and Oak. The *Beech*, also, its green leaves unwillingly turning to brown on the outermost edges, is an exquisite tree in autumn, as at what season is it not? Why is it that the Beech is so little cultivated, and that we so rarely see this most beautiful of deciduous trees in perfection in this country?

The Mountain Ash is a charming tree, with its formal shape and scarlet berries, but it must be backed by tall evergreens to be seen to advantage. Formal upright trees usually require a background of verdure, though occasionally a single one may stand out against the sky with great effect, in contrast with other forms. Ave-

nues especially produce a meagre effect, when they consist of formal or regular trees. Even the Maple grows too uniform and globular. The Chestnut is very desirable for this purpose. With the exception of the Oak, which we cannot wait for, the Chestnut, when growing alone, produces the most massive and varied forms of any tree I know in these parts.

The beautiful thorns that grow in abundance among our hills, are a singular instance of the effect of form apart from size. Aged trees, of a century's growth, with their broad flattened heads and short massive trunks, suggest ideas of venerable antiquity, that the upstart Maples beside them can never attain. I have noticed the same effect in a few aged Apple trees, and have two in my mind that I would gladly transplant as ornaments to my house. There is another form of the thorn which is very beautiful, and easily produced. A stocky thorn, transplanted into rich ground, and headed down with those outside shoots and suckers, which, with a little care to prune a straggling limb, will produce a rounded pyramid or sugar loaf of solid green. I have seen beautiful thorns of

this shape in the meadows, pruned only by the mower's scythe.

Unique effects are produced by the dwarfing effect of the exposed and open sides of our bleak mountains. Oak trees of great age, with wide spreading arms, their tops not more than fifteen or twenty feet from the ground, and diminutive forests of Beech, of a similar character, make you believe that you have reached the country of elves and pigmies. The mountain pastures and the charcoal tracts, sometimes of thousands of acres, without fence or house, presenting large spaces of open ground, broken by groups of second growth wood, and with every varied form of ground, from ravine to mountain, present a charming field for observation to the lover of the picturesque effect of trees. W.

[We recognize, in the above excellent paper, one of the most cultivated and artistic minds in the country; and we are glad to find that the rich store of observations, which we know the writer has accumulated, are beginning to rise to the surface, and overflow a little for the good of others. We shall always welcome with pleasure any contribution of "W." in this journal. Ed.]

NOTES ON THE CULTURE OF THE GOOSEBERRY.

BY THE VICE PRESIDENT OF THE HORT. SOCIETY OF AUVERGNE.*

THE interest with which the English collect, every year, new varieties of the gooseberry, and institute special prizes for them, in the various horticultural societies, is well known. Indeed, in Great Britain, where all fruits are rare, and where the greater part of those we obtain so easily are rendered impossible by the climate, it is quite natural that every care and atten-

tion should be given to an indigenous species, which there comes under the most favorable conditions of development.

It is not even necessary that the fruit of the gooseberry should be ripe, in order to be prized by our neighbors. Tarts and pastry are made of them before the maturity of the fruit; and the excellent sauce

* Translated from the *Revue Horticole*.

which accompanies mackerel and other fish, and which adds to the piquancy of even these delicate dishes, requires the green gooseberry only, which are even known by the name of the fish. They are also preserved for this purpose by the method used at Appert, Belgium, England, and the north of France,—the only countries where the art of the gastronome numbers genuine disciples, who appreciate justly the green fruit of the gooseberry.

We will not say this fruit cannot attain to maturity with our neighbors. On the contrary, the climate of England is more favorable than ours to the development of all kinds of gooseberries; and they reach there a perfect maturity. Moreover, these plants grow there in the gardens, without culture, and bear constantly. It also flourishes here; but the heat of our summers is often fatal to great numbers of our gooseberries, and we cannot, moreover, hope to obtain fruits equal in size to those which the English raise for exhibition or prizes.

We have already remarked, that, by sowing seeds and by hybridizing, we may obtain in France, as well as in England, new and meritorious varieties. These seedlings are so easily raised that there is always an advantage in raising them, and in reserving for them those sorts raised from seed, instead of those multiplied by cuttings. This last mode of increase is, indeed, employed to propagate the finer varieties; but, by sowing only seeds of fine fruits, remarkable kinds are infallibly obtained.

These seedling plants are very vigorous, and resist much better than others the heat of summer, their greatest enemy in our Auvergne climate, and still more so in the south of France. [We commend this fact to American gooseberry growers.

ED.] All kinds of soil are suitable for the mackerel gooseberry; [i. e., those grown for tarts.] They prefer, however, that which is rather new and strong; they shrink from the sun, but like still less, entire shade; and, as between two evils, we must choose the least, it is better to plant them in the open sunshine, provided their roots are shaded, and that the ground which surrounds them preserves its moisture. In the other case, the plant withers before ripening its fruit, and perishes entirely, or, at least, down to the ground.

The best method of treating these gooseberries, is to cover the earth around their roots with stones, tiles, or with a sort of paving brick or tile; and this practice, so necessary for the plants in question, is always excellent for all fruit or other trees; and we always find those specimens doing well which are planted in well paved yards, where their roots are kept cool, and protected by the stones. This may readily be understood, when it is remembered that stones do not exhaust the ground, like any plants or weeds which might spring up therein; and also, that a close pavement, or tiling, would prevent the evaporation of the soil, its consequent drying, as well as hinder it from burning.

This action of the sun, with the consequent heat and evaporation, often injurious to large trees, whose roots spread to a considerable extent for nourishment, is often fatal to the gooseberry, whose smaller and more delicate roots suffer excessively in a hot and dry climate.

The roots being protected, the gooseberry may be cultivated in three different ways: as a bush or shrub, as a vertical espalier, or as a horizontal espalier.

As a bush or shrub. It suffices, for the first purpose, to let it grow at will; and for the second, to cut out down to the

base or main stem all the superfluous young shoots, in order to keep it to a single stem. It is the plan generally preferred, and that which gives the least trouble.

As a vertical or upright espalier. I have always tied those which I have cultivated in this way upon an arbor or trellis of Provence reeds. After some years, they are well filled up, planting them at the distance of three to four feet. The long branches should be slightly bent; they bear sooner and more abundantly. Trim them boldly, and part all the shoots which crowd or cross each other. This arrangement has the advantage of displaying the whole plant at a glance; and besides, the fruit is larger and more abundant. It is so fully exposed, that it also ripens sooner.

As a horizontal espalier. This may be accomplished in two ways: at a certain distance above the ground, or upon the ground itself. In the first method, the bush is trained up to one stem, then the branches allowed to spread over a sort of rounded table, on which it extends itself, the top diverging like a flat umbrella top. This arrangement, which at first appears quite original, has an undoubted advantage over the others. It is that the fruit, not being suspended, but resting on the wood, acquires a larger size; and this fact, confirmed by experience, applies not only to gooseberries, but to all fruits. Thus, *if a pear or a peach be accidentally supported in this way, it will be larger than its neighbor, which hangs by its own weight.* It is partly owing to this fact, also, that even vertical espaliers, whose branches are well fastened, produce larger fruit than standard trees, exposed to the wind, even when the pruning has been done with care and judgment.

As to the gooseberry trained as an espalier upon the ground itself, it is doubtless the method to obtain the finest fruit, and it is the most simple way of cultivating these plants. This plan consists simply in surrounding the bush at its base with tiles, and making for it a circular area, slightly raised at the circumference, so that the rain and the watering of the plants may descend directly to the roots, and not remain upon the tiles. Over these tiles the branches, loaded with blossoms, are allowed to spread from the centre to the circumference. If they do not immediately attach themselves to the area, they are sure to do so afterwards, by the weight of their fruit; or, at least, they become so much bent, that the extremities are certainly supported. Except the judicious pruning of too numerous branches, there is nothing more to do, but to await with confidence the ripening of the gooseberries. It is easy to perceive the advantages of this mode of culture. The roots are protected from the heat by the tiles, all natural or artificial waterings are carried directly to the roots of the plant, and larger, earlier, and cleaner fruit are obtained at scarcely any care or expense. Such are the results of this method.

In all these different plans of cultivating the gooseberry, if the *beauty* of the fruit is more desired than its *quantity*, a large part of the fruit must be thinned out; and this operation should not take place until the young berries have attained a certain size, [say a fortnight's growth,] as the larger and finer fruits may then be selected to remain, which could not be done if they were removed at an earlier stage.

We are confident that in following with success the principles here suggested, we should be able to place upon our tables such fruit as would here appear extraor-

dinary, and more so as we are less accustomed to see them in all their perfection.

H. LECOQ,
Vice President of the Hort. Society of Auvergne.

[The foregoing article is much better

adapted to this climate than any from English horticulturists on this subject. M. LECOQ properly explains the secret of raising fine gooseberries in a hot and dry climate, viz., *keeping the roots cool*. ED.]

DESIGN FOR A VILLA IN THE TUDOR STYLE.

BY GERVASE WHEELER, ARCHITECT, HARTFORD.

WE are indebted for the design in our frontispiece, of this month, to Mr. WHEELER, an European architect of ability, who has established himself at Hartford, Ct. Our engraver has, to our regret, by no means done justice to the drawing sent us; but it will still give our readers an idea of the merits of this style. Mr. WHEELER has well explained the plan of this house in the following remarks:

This design is that of a country residence, suited to the demands of a family of taste and wealth, and is made in the Tudor Gothic style of architecture, adapted to the wants of the present day.

The disposition of the plan provides for a large dining and drawing-room, which communicate with each other, and also, by means of glass doors in the side of the rooms, with a conservatory or plant cabinet; an arrangement which would be found very beautiful in effect, and convenient for many purposes. This conservatory might, in the summer, be covered with an awning, thus making a small saloon, or additional boudoir; and in the winter, being filled with flowering plants, it would add greatly to the beauty of the internal aspect of the rooms which open into it.

There is next to the drawing-room, and communicating with it, a boudoir, or ladies' room; and the dining, drawing, and this latter room opening *en suite*; the space

capable of being thrown open, on occasion of company, would be found very liberal. Next to the boudoir is the library, a large well lighted, and handsome room. All of these rooms, with the exception of the library, are fourteen feet high, and large in proportion.

A kitchen, large staircase and entrance halls, pantry, &c., and back staircase, complete the accommodations on this floor.

Entrance is gained to the house by means of an angular porch, consisting of a single pillar, from which spring two arches, stopping against the wall of the house, and resting on corbels on either side of the spacious entrance doorway. This porch might, if desired, be made very much larger, so as to admit of a carriage driving through, and permitting visitors to enter under cover.

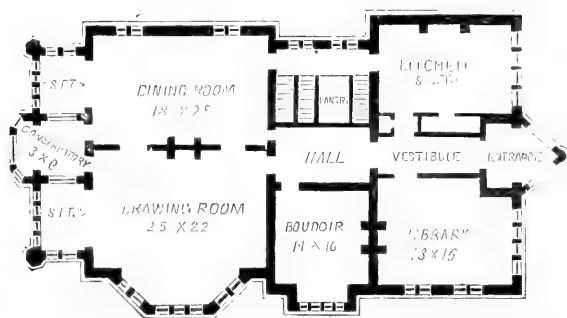
Over the library and kitchen is a large room, which it is intended, in the present instance, should be used either as a private chapel or large library; but if such an arrangement is not desirable, the room could be divided into three chambers, or otherwise distributed as may be required. The boudoir forms the lower story of a species of tower, which is carried above the roof.

The large angular bay of the drawing-room is also extended to the room over, which room would thus make a very spacious and desirable chamber.

The style of the house is one that would



VILLA IN THE TUDOR STYLE.



PRINCIPAL FLOOR.

[Hort June 1890]

be peculiarly adapted to those localities where the scenery was rather sylvan than wild, and on an undulating lawn, stretching away to a broad river or lake, and backed by tree clad hills, would look very well.

The material might either be entirely stone, or brick with stone dressings; this latter being a frequent and very appropriate manner of building in this style.

The windows should be glazed in a manner accordant with the spirit of the design, and the interior of the rooms protected from the heat of the sun by inside shutter blinds, made to slide into the walls, whilst there might be in the drawing and dining-rooms, sliding doors, glazed or otherwise, which could be made to entirely shut off the bays, (the rooms being sufficiently lighted in other ways,) either to contract the size of the rooms in cold weather, or to shade the rooms from the sun in the middle of the day during the summer.

The inside finish should be carried out with due regard to the detail externally exhibited, and the furniture, without being outrè, or possessing any of the absurdities so much of our modern "Elizabethan" furniture presents, might be made to harmo-

nize with the house very readily. The cost of the building would vary from eleven to fourteen thousand dollars, according to the location and price of materials.

The whole composition is the result of an endeavor to adapt a well known and really beautiful style of the long-gone past to the wants, improvements, and habits of living of the present time. It is not, however, by servilely copying any one specimen of such a style that the demand in these, our own days, is to be met; it is not by imitations of battlemented parapets and castellated mansions, with draw-bridge, and portcullis, and moat to boot,—things no longer necessary, and therefore no longer beautiful, in new composition; the vital element of beauty—fitness, being away. But it is by working out the same unerring principles that governed the productions of an art that obtained such glory in mediæval days, that we must hope in the nineteenth century to succeed in producing results, which to posterity shall be as beautiful and as loved monuments of our artistic achievements as those we now retain in the old world are of those who have gone before.

G. W.

Harford, May 16, 1849.

TWO BEAUTIFUL NEW PLANTS.

Our enterprising plant-growers have lately introduced from England two beautiful new plants, both of which will no doubt prove perfectly hardy, and very great acquisitions to the beauty of our flower gardens and shrubberies. We give brief notices of them now, that our amateur readers may take pains to possess themselves of these charming novelties.

I. LADY LARPENT'S LEADWORT—(*Plumbago*
VOL. III.

bago Larpentæ.) This is a Chinese plant, growing in low tufts, with numerous stems, and bearing a profusion of clusters of blossoms of the most exquisite gentian blue colour. The first living plant of this new *Plumbago* was sent from China to Sir GEORGE LARPENT, who exhibited specimens in bloom before the London Horticultural Society, in July, 1847.

Mr. FORTUNE, the botanical traveller,

Fig. 60.—*Lady Larpent's Leadwort.*

found this exquisite Leadwort growing out of an old wall near Shanghai; and it is described as one of the most ornamental plants in all China. As the climate of Shanghai is not unlike that of Philadelphia,—the thermometer falling as low there in winter as 13° in February, and rising as high as 110° in August; and as this plant is found growing along with the *Wistaria sinensis* and the *Wiegela rosea*, both of which have proved perfectly hardy in this country, we cannot doubt that it will be found to stand our winters in the middle states without protection.

As our hot summers so much more nearly resemble those of China than the English summers do, and as this plant likes a dry sunny exposure, it will be more

likely to thrive and bloom abundantly here than in England.

We imagine Lady Larpent's Leadwort will prove a superb addition to our list of plants for "bedding out," as it extends itself near the surface of the ground, and is so prolific of blossoms, that a single plant last year, in the possession of Messrs. KNIGHT and PERRY, English florists, bore, in the month of October last, 4,000 flowers!

It of course requires a dry warm soil. The stems are numerous, slender, and a little wavy, or zig-zag, in their growth. The leaves are obovate, narrow at the base, and finely serrated and fringed along the edges. The flower is of an exquisite blue, with a reddish or violet throat, and is borne in dense terminal or axillary heads. The



Fig. 61.—The Dark Green Forsythia.

plant grows very freely from cuttings of the stem, or by dividing the root.

As yet, this new plant (of which we are indebted for a fine specimen to Mr. BUIST, of Philadelphia,) has only been grown in pots, and is still very scarce in the United States. But it will doubtless thrive best in the open border, and is likely to be pretty widely known to amateurs by another year.

II. THE DARK GREEN FORSYTHIA—(*Forsythia viridissima*.) This fine new hardy shrub is one of the novelties brought from China to England, by Mr. FORTUNE, in 1846. It was introduced into this country last season, and has flowered finely this spring. The following is Mr. FORTUNE's account of it:

"This is a deciduous shrub, with very dark green leaves, which are prettily ser-

rated at the margin. It grows about eight or ten feet high in the north of China, and sheds its leaves in autumn. It then remains dormant, like any of the deciduous shrubs of Europe, but is remarkable for the number of large prominent buds which are scattered along the young stems, produced the summer before. Early in spring those buds, which are flower buds, gradually unfold themselves, and present a profusion of bright yellow blossoms all over the shrub, which is highly ornamental.

"I first discovered it growing in the same garden with *Wiegela rosea*, which I have said in another place belonged to a Chinese mandarin, on the island of Chusan, and was generally called the "Grotto Garden" by the English. Like the *Wiegela*, it is a great favorite with the Chinese, and is generally grown in all the gardens of the

rich in the north of China. I afterwards found it wild amongst the mountains of the interior of the province of Cheekiang, where I thought it even more ornamental in its natural state, amongst the hedges, than when cultivated in the fairy gardens of the mandarins.

"In England, it is probable that it will be nearly hardy; but I advise the possessor of it, in the first place, to keep it in the greenhouse until its constitution is proved. It is a free growing bush, and is easily increased by cuttings or layers."

We are happy to be able to add to the foregoing, that this new shrub has proved perfectly hardy in the United States, in this latitude. The specimen from which our sketch, fig. 61, was made, was taken from a plant in the nurseries of our neighbors, Messrs. A. SAUL & Co., of Newburgh, N. Y. This specimen was planted last

season in the open border, in a cold and exposed site, where it remained during the past winter, exposed to 10° below the zero of Fahrenheit,—an unusually low temperature. Notwithstanding this, it was found quite uninjured this spring, and was among the earliest shrubs to open its blossoms, which began to expand directly after the Mezeron, and remained in bloom the whole month of April. When the flowers first expand the shrub is leafless; but before they fall, the leaves commence unfolding. The great number of these bright yellow flowers, and their cheerful as well as beautiful aspect at that early season, will soon render the Forsythia a very popular hardy shrub.

We will mention, also, that the stems are green, the leaves oblong, and emit a slight balsamic odor; and the foliage has a very rich effect in the shrubbery.

NOTICE OF THE PRUNE D'AGEN.

J. W. KNEVELS, FISHKILL LANDING, N. Y.*

THE Agen Date Prune is also known as the *Robe de Sergeant*, Prune d'Ante,† (d'Astt, of the London Hort. Society's Catalogue,) St. Maurin, and de Bignolles of some. It has been cultivated in the south of France from time immemorial; and our author thinks it almost inconceivable that so valuable and hardy a tree should have been so little known or cultivated beyond its own immediate district; (in the department Lot

et Garonne, of which Agen, on the latter river, is the capital.)

He assures us, further, that it is entirely indifferent to the quality of the soil in which it is planted, and bears abundantly in all exposures; "an intimate companion of the vine, they unite in decorating the precipitous slopes of the calcareous regions, the sandy plains, exposed to the north winds; the court and grounds of the wealthy, as well as the contracted limits of the cottage garden."

"It may be said that wherever the vine grows, the Prune d'Agen will succeed."

"As to the transplantation of this tree into a more rigorous climate than ours, the

* From a paper by M. Tourres de Machetaux, in the *Annales de Fromont*.

† The Prunes of Agen, which are considered the best in France, and are a good article of exportation, are termed "Entes," from ente, a graft—*Malte Brun*, (Perceval's edition)

‡ The Prune d'Ast is not the same as that of Agen; for which, see Prince's Pom. Man'l, and the authorities quoted by him.

question has been already resolved. The mountains of Auvergne, some valleys in the Pyrenees, several places in the 'Landes'—localities differing in themselves, but all cold, and where grapes scarcely ripen, exhibit this tree in successful cultivation."

"It is already cultivated largely in the *United States*. One of my neighbors, a nurseryman, sent out to one person in Philadelphia all his remaining stock of this plant, which was quite large."

And again, he says, "I am informed by a countryman, living in the vicinity of New-York, to whom we had sent out a parcel of about one hundred of this tree, in 1822, that they succeeded perfectly, and were beginning to bear in abundance.* (1832.) During the severe winter of 1829 and '30, almost all our apricots were killed, together with a great number of other fruit trees; but the Robe de Sergent, *on its own stock*, whether old or young, did not suffer at all, but bore fruit as usual the ensuing season. On the contrary, however, *grafted* trees of this variety were much injured."

"The fruit is oval, compressed, (*aplaté*), divided by a longitudinal suture on one side. Its colour is a violet red, more or less vivid on the sunny side; the peduncle is from five to ten lines in length, (rather vague.) It begins ripening about the end of July. The leaves are lanceolate, sometimes curled at the edges; the colour a pale green, and the petioles are, when growing, sometimes tinged with red."

In Prince's *Pom. Man'l*, it is said—"the skin is purple, approaching to black; the stone is very flat, and rather smooth. This

plum is often confounded with the *Royal de Tours*, but may be readily distinguished by its darker colour, and by its stone being more flattened. It ripens about the middle of July."

Mr. Downing, in his book of Fruits, mentions it in the following terms, which does not agree with Mr. Prince's description: "A French prune of good quality, (L. H. S., Col. No. 1,) chiefly used for prunes or preserving. Branches smooth; leaves narrow; fruit of medium size; skin purple, with a blue bloom; stalk short; flesh greenish yellow, sweet. It is a freestone, and makes excellent prunes. It ripens *late in September*, and bears prodigious crops."

Liegel, (the German pomologist,) in his *Introduction*, speaks of the Prune d'Agen as a handsome variety of the Red Egg plum, (not the Red Imperial,) having the same habit, ripening at the same time,—*end of August*, and of about equal value. He adds,—"Some of the fruit are a little more projecting at the stem, which is also observable in the stone. Generally, they are *strikingly large*, and a little larger than their parent, the Red Magnum Bonum." In his "Survey of Plums," without referring to this description in his former work, above quoted, and without giving the synonym *Pr. d'Agen*, he describes the *Robe de Sergent* as a *medium*, large, *oblate shaped* plum, of very good flavor, &c. &c. These discrepancies lead one to believe that the same plum was not intended by these writers, and that the Robe de Sergent is not (always) used as synonymous with the Prune d'Agen.

"The fruitfulness of this tree," Mr. TOURRES continues, "is extraordinary; one of our friends and a neighbor, M. BOURDEY BEAULIEU, of MONCLAU, has one of these trees, a large and superb specimen,

* It would certainly be interesting to find out what has become of the importation here specified; and we hope if the gentlemen here referred to should see this number of the Horticulturist, that they will communicate the result of these important experiments, giving us a description of the tree, and its fruit, its quality, hardness, use, and any other interesting details.

from which he has obtained 105 livres of dried fruit; ($52\frac{1}{2}$ kilograms, or about 115 lbs. avoirdupois;) and another individual, in the environs of Machetaux, sold, last year, (1832,) 750 francs' worth of dried prunes,—the produce of a space of about the fourth of an hectare; (rather more than half an acre.)

Our author recommends, from his own experience, that this tree should be propagated by offsets from the roots,—a method generally adopted in its own district; asserting that grafts are not lasting, worked upon the peach or almond stocks; it thrives for a time, and makes great shoots for several years, but after that, languishes and dies.

As to the process of making the prunes, they are placed on hurdles made of straw or weeds, raised two or three feet from the ground, and are left there to wilt for about 48 hours, when they are shifted to other hurdles, and put into an oven, the heat of which is but a third of that required for bread. The mouth of the oven is closed with damp straw. This operation having been repeated thrice, the fruit is ready for consumption or sale. Those to be used in the house are stored away in rather a dry than damp quarter; and those to be sent abroad are packed in boxes of proper size, lined with brown paper. A leaf or two of the Bay tree put into each box, gives the fruit an agreeable perfume.

M. TOURRES concludes, by remarking, that if the inhabitants of Provence pride themselves upon the possession of the "Tree of Minerva," (the Olive,) his district has a great reason for glorying in the possession of this finest of prunes. He also declares that if the author of the Essay upon the

Statistics of Provence, (to be quoted directly,) had ever tasted their first rate prunes, ("*de nos belles prunes de premie choix,*") he would have taken good care not to compare with them the prunes of Brignolles. From the last mentioned essay,—"*Statistique Horticole de Provence,*" suffer me to extract from the article on the plum tree the following: "The cultivation of plum trees was more attended to than that of any other fruit tree in other countries, principally on account of the trade carried on in prunes, *dried in the sun,* and known as the 'Pruneaux de Pistoles.'" "The Prunes of Brignolles," (a small town of Provence,) deserved their celebrity; but at the present moment, it has lost its former plum plantation. The prunes, now sold as such, come from the environs of Digne, especially from Estoublon. They are packed in boxes, covered with a paper, stamped with the arms and cypher of Brignolles. These prunes are superior in quality to those of Tours, and *even to those of Agen*, but still are not equal to those of the district whose name they have assumed, where, however, a few plum trees are still left, justifying their title to the distinction they have acquired."

My apology for this long and, perhaps, tedious article, must be the conviction I feel, that in our every year increasing fruit tree cultivation, the making of prunes will become an important branch of our horticulture, especially in this district of country, where the plum succeeds so well, and under our serene and resplendent autumn skies, which almost supersede the necessity of artificial furnaces.

J. W. KNEVELS.

Fishkill Landing, N. Y., May, 1849.

A NOTICE OF THE CHANCELLOR PEAR.

BY DR. WM. D. BRINCKLE, PHILADELPHIA.

CHANCELLOR.

Green's Germantown, }
Early St. Germain, } *Synonyms.*

THIS fine large autumn pear was exhibited at the annual exhibition of the Pennsylvania Horticultural Society, in September, 1848, by SAMUEL R. SIMMONS, Esq., one of our most prominent amateur horticulturists. The fruit was procured from a grafted tree, in the possession of Mr. Joseph Green, of Germantown. The graft was obtained ten or twelve years ago by Mr. Green from a tree on the premises of WHARTON CHANCELLOR, Esq., on School-House Lane, near Germantown.

From a close examination of the tree, at Mr. CHANCELLOR'S, as well as from the testimony of persons who have long resided in that vicinity, there can scarcely be a doubt that it has never been worked, and that it has stood in its present location upwards of fifty years. It is therefore, in all probability, a native Pennsylvania variety; and we are under great obligations to Mr. GREEN and Mr. SIMMONS for bringing it into notice.

The original tree stands in a circular enclosure of beautiful evergreens. A foot above the ground, it is four feet nine inches in circumference; but its height is not proportionate to the size of the trunk. The branches grow somewhat horizontally; the young wood is slender, and of a yellowish brown colour; leaf lanceolate. The tree has a healthy appearance, and is said to be an abundant bearer.



Fig. 62.—Chancellor Pear.

Fruit large, nearly four inches long by three in width; form obovate, or obovate-pyriform; skin green, covered with minute brown specks, and some russet blotches, with occasionally, though rarely, a faint speckled brown cheek; stem one inch long, rather thick, and inserted in a small irregular cavity, sometimes elevated on one side; calyx small, set in a contracted basin; core medium; seed long, yellowish brown; flesh very melting; flavor rich, and exceedingly agreeable. Ripe last of September.

W. D. B.

TIMELY HINTS ON DESTROYING INSECTS.

With all the luxuriance of spring vegetation, and all the vigor of early summer growth, comes the army of countless thousands of insects, with which the gardener has to contend.

This is often a drawback so serious, that the inexperienced amateur who, resting on his hopes and the promise of fruition, which nature holds out, is bitterly disappointed to find that just in the midst of this fair promise, the *insect army* attacks him, and, if it does not completely put him to rout, at least vexes him very seriously in all his outposts, and not unfrequently lays his country under very heavy contribution.

Curculios, rose-bugs, rose-slugs, aphides of every hue, borers, caterpillars,—these are a few of the names of the principal regiments of the allied army of attack.

We have nothing new to offer regarding the two first, which have been pretty liberally discussed in our columns already. The only effectual way of raising stone-fruit, on a large scale, in curculio districts, is to plant the trees in a quarter by themselves, where pigs and chickens, having the run of the ground beneath them, may keep them (the insects) down. For a wholesale mode of destroying the rose bug, the pest of light soils, we are yet in the dark; the usual way, of handpicking and scalding to death, being that practiced by all skilful growers as yet.

But while these insects are in a great degree local, the aphides, (or plant lice,) and the rose slug, are becoming general depredators, and must have especial attention at this season of the year, or they will suck the juices out of the young growth, and destroy the beauty and value of the garden.

Our own favorite remedy against these, (and a large part of the regular army besides,) is *tobacco water*. Every good gardener, and every amateur, should have a few gallons of it at hand at this season, and should use it the moment they perceive the attack of the insects commencing. After trying many remedies, we find this the most unfailing in its effects.

But tobacco water, like gunpowder, must be used with caution. Though perfectly harmless to plants if used in a diluted form, yet it may be made so strong as to injure or partially destroy the foliage. It is impossible to lay down any precise rule for the novice, unless we say that water should be added till it is brought to the colour of weak black tea. A better mode is to try a little on the foliage of the plant infested. If, twenty-four hours after application, the foliage is entirely uninjured, but the insects destroyed, then continue the dose on a larger scale. If it is too strong, of course dilute it, and try again. This little trial is the more necessary, for, while some plants and some insects will bear a strong decoction of tobacco water with impunity, others are injured by a much weaker dilution.*

A syringe affords the easiest and best mode of applying the tobacco water; and towards evening, or very early in the morning, is the best time of applying it. When only the ends of small trees or plants, which are standing in rows are infested, a dash from a small broom or white-wash brush will answer the purpose. In the case of delicate plants, roses, small

* The tobacco liquor, or juice, to be had always in quantity at the tobacconists, is the easiest and best form in which to get this fluid. It will usually require the addition of two-thirds water before using it. Those who cannot get this, may boil tobacco stalks till a strong decoction is made.

flowers, etc., a plentiful sprinkling of clean water over the foliage, eight or ten hours after applying the tobacco water, will be of service; but it is not necessary for more sturdy trees or plants.

The rose slug—that very small, slimy worm,—which makes its appearance about the first of this month, on the under side of the rose leaves, and frequently so devours them as to wholly destroy the beauty of the plant, may be effectually killed by syringing the under side of the leaves with tobacco water in the evening. It should, to be effectual, be done twice,—once at the first appearance of the insect, while the roses are yet in bud, and once a few days afterward, so as to catch any second reinforcement that may have escaped the first dose.

Mr. HAGGERSTON'S mixture of whale-oil soap and water, (two lbs. of the soap to fifteen gallons of water,) is also a well known and equally efficacious remedy against the rose slug, and a host of other small insects.

Just at this moment, too, the borer, which attacks the trunks of the apple and other fruit trees, as well as that which punctures the ash, is flying about, depositing their eggs in the bark of the trees. Lose no time, therefore, in defending such trees as are most precious, and most open to assault, by washing the trunks over with a mixture of soft soap and strong tobacco water, made just thin enough to be applied easily with a brush.

Caterpillar nests must be taken off by hand early in the morning, while the dew is on them, and the insects at home, and crushed under foot. A little timely attention with these pests will save a vast deal of after trouble; as the inhabitants of a single nest, if left in quiet possession for a fortnight, will have grown strong enough

to attack a whole orchard, and carry it by storm.

If you find the insect army is fairly down upon you, do not lose your temper, but keep cool, and go quietly and regularly to the attack. Devote half an hour or an hour every morning regularly, and he will soon be forced to yield to your systematic warfare, especially if you give him a liberal allowance of tobacco water.

Postscript. We find the following mode of destroying the little green fly insects, given by Professor LINDLEY; and, as it is neater than tobacco water, it will no doubt be patronised by many of our amateur readers.:

“Elsewhere will be found various receipts for the destruction of the *aphides*, which are swarming in our gardens. The efficacy of each receipt is vouched for by its advocates, and, we doubt not, in all cases truly. Tobacco water, tobacco dust, soap-suds, and gas water, all have their admirers. We patronize smelling salts.

“We doubt not, however, that complaints may, and will come, of the inability of all these applications. People fancy that it is enough to throw or trundle the fluid over the infected bushes, once for all, and the thing is done. They forget that no application whatever can reach the insects that lurk in the folds of the leaves; that others will be missed even on the surface; and that these creatures multiply at a rate somewhat greater than even the population of London. Thousands and tens of thousands may be destroyed to-night, and to-morrow others fall into the ranks, and recruit the legions.

“One or two applications of any sort can be productive of little relief. They must be frequently repeated, and skilfully, by sharp and quick expulsions from a fine rosed syringe. If that is done, we guaran-

tee the riddance of the pest by means of *carbonate of ammonia*; for we have removed it ourselves within the week.

"As to the proportion of carbonate of ammonia, (smelling salts,) which it is expedient to use, that depends upon its quality. If bought fresh of the wholesale chemist, half an ounce to a quart of water is

enough; but it is often much weaker, when the proportion of the salt must be larger.

"It has the great merit of being *clean* and *effectual*; besides which, it improves the health of the foliage very much. All the other washes, although they be as powerful, are dirty, and, therefore, objectionable in flower gardens."

HEALTH AND LONGEVITY OF FRUIT TREES.

BY DR ESHLEMAN, DOWNINGTOWN, PA.

It is now almost universally admitted, that seedling trees retain their health and vigor longer than those produced by the various modes of propagation. It is therefore natural to inquire, why it is so. If the age of the tree whence the scions were obtained, (running out of varieties,) is assigned, we naturally answer, the original seedling still stands in green old age, while numbers of its engrafted progeny have passed into the "sere and yellow leaf." The stock exerts an influence upon the scion, and if it be diseased, the duration of the tree will be diminished. This is satisfactory, so far as it goes; but we are writing about healthy stocks. Both may be healthy, but their vascular system, or their whole organization differs, and consequently, there is some impediment to the free circulation of the fluids, and disease follows. It is barely possible, that this cause should produce a constitutional taint, which should operate so slowly as only to show its effects in twenty or thirty years. But vascular structure and æstivation, are better tests of varieties, than difference of size and general external configuration; and the fact of a scion growing well upon a stock, is demonstrative evidence of similarity of structure,—at least not dif-

ferent enough to be a common cause of disease.

Is there not reason to believe, that a more fertile cause than all these, may be found in the usual clumsy mode of propagation? Some insert their scions on pieces of roots in the cleft manner, without regard to the thickness of either: others transplant their seedlings, removing some of the roots, allow them to grow one or more years, and cleft graft near the surface of the earth: and yet others, prefer budding their transplanted seedlings. Who cannot perceive, that in either case, great injury is done the stalk. Especially is the second objectionable, if the seedling have made a vigorous growth and attained the size of one-half or three-quarter inches in diameter. Excision, cleaving and inserting a scion one-eighth or one-twelfth that size, must produce more injury and exposed surface, than its vital energy can ever repair, and all the wax and shellac solution cannot prevent it.

If in connection with the foregoing, we take into account the beautiful theory of Prof. TURNER, of the vitality of that part of the tree upon which this mutilation is generally inflicted, is it not strange, that trees after having repaired, in a measure,

these injuries, should live so long? What would be thought of the skill of a surgeon, who in performing an operation, should leave exposed fifteen-sixteenths of a cut surface to heal by the natural method of granulation and cicatrization? Would not such practice, from its want of success, and constitutional effect upon the patient, deserve contempt? And should not a similar practice in vegetable operations, when attended by similar results, and loss to purchasers of such *mutilated stumps*, meet with equal reprobation? And yet stocks one inch in diameter, four feet from the ground, have been at that point cut off, cleft, a small scion inserted, which grew eight or ten inches, and the ensuing autumn sent out by the "proprietors of nurseries at Flushing," at the very moderate price of thirty-seven dollars per hundred.

A much better method than these—though less expeditious, and consequently less popular, because we like to grow potatoes, yea! and apples too, as well as talk by electricity—would be to select good seedling stocks, scions of the same size, uniting them in the splice or whip method,* or rather a combination of the two; apply some melted wax,† and it is done; or wrap them tightly with some destructible substance. If the union is to be under ground, apply no wax, as it will prevent the decay of said substance, and make a defect. Trees engrafted carefully in this manner, after two years' growth may be cut in thin longitudinal slices, without detecting where the union was effected.

If the whole theory of Prof. TURNER be correct, mine is of less importance, but it is probable that the age of varieties, and

whether a scion or single bud be used, has less to do with the premature decay of trees, than the manner of insertion and future treatment. When the bud grows, the main stalk is cut off above, and is a cause of disease in proportion to its thickness and the length of time required to "grow over." But even after this partial reparation has taken place, who cannot see that the *ascending* juices here meet an impediment, and are required to adopt a new course, and long before air, moisture and heat have ceased to operate directly upon this offending foreign substance, decomposition has commenced, and consequently deterioration of a portion of the ascending juices, carrying disease through every branch? Nor does it follow, because this diseased condition does not sooner manifest itself, that therefore it cannot thus be produced. Who does not know, that by drying, the destructibility of wood is diminished, but not prevented? Hence the greater durability of the tree with hard wood, if the cut surfaces have been carefully covered. Does not the premature decay of peach trees, even when not affected with the "yellows," confirm this theory? Let the doubter examine his budded trees at the place of union, even after five years apparent healthy growth.

These reflections have been suggested by the examination of a number of trees felled in two orchards during the past autumn and winter. In one the trees were all seedlings, and by their concentric circles indicate fifty years' growth, perfectly sound to the centre; the others, grafted trees, about twenty years planted, and invariably decayed at the centre, near the earth.

J. K. ESHLEMAN, M. D.

Downingtown, Pa., May, 1849.

* See Fruit and Fruit Trees of America, p 15-16.

† lb. p. 19.

REVIEWS.

A PRACTICAL TREATISE ON THE MANAGEMENT OF FRUIT TREES, adapted to the interior of New-England. By GEORGE JAKES. Worcester, 1849.

No better proof is needed of the increasing taste for horticulture, than the production of little volumes like this, intended for particular districts of country; for it is sufficiently evident that if fruit trees were not now pretty extensively planted and grown in the "interior of New-England," neither authors nor publishers would be tempted to produce works thus adapted to especial localities.

Every one, however, who is conversant with fruit tree culture, knows that while there are many truths of universal application, there are also many others which have a purely local value; and hence the utility of works of this character.

Mr. JAKES has, we think, performed his task well, and aiming only to produce a useful manual for the New-England fruit-growers, has collected many valuable facts and arranged the whole so as to convey the largest amount of instruction. We recognize in the early chapters of the work the same arrangement as in our own larger volume on this subject, and a somewhat similar treatise. But this is probably owing to the difficulty of going over the same ground with the appearance of freshness.

There is a very good chapter on the "orchard business," which the author thinks a capital investment of money for the landholder; and another on the "nursery business," which he thinks usually a poor one, closing his remarks on this subject with the following paragraph:

"The nursery business requires very

much more skill than ordinary farming, and its profits are far more uncertain. Upon the whole, it is a much better avocation to amuse a rich man's leisure than to replenish a poor man's purse. The reader may rest assured that there is no more satisfactory way of arriving at a *realizing* sense of the truth of this assertion, than to give the business a thorough trial. For ourselves, we confess that we have fairly and clearly 'seen the elephant' that eats up the profits of raising or buying fruit trees for sale."

The descriptive lists of fruits in this manual are small, for the best of reasons, viz: that only a small number of unexceptionable fruits can be safely recommended for cultivation in any given locality, and Mr. JAKES appears to have made his selections wisely.

Altogether, this pocket volume of 256 pages, is highly creditable to the author, and will we have no doubt be found a very acceptable contribution to the horticultural knowledge of the Eastern States directly and indirectly, for novices in fruit-growing the whole country over.

.....

THE AMERICAN FARM BOOK, or *Compend of American Agriculture*. By R. L. ALLEN. New-York, 1849.

THIS work was first published two years ago, under the second portion of the above title, and was so favorably received by the public that it has undergone in the present revised edition, considerable improvement, and now makes its appearance under the more popular name of the "American Farm Book."

Having commended it in very strong terms in a former number of this journal,

and the work being substantially the same, there is no necessity of our repeating our praises of the ability with which it is written, in all that relates to agriculture.

The author, since that period, having resided nearly the whole time at the South, has been able to add considerably to the departments of the work relating to southern agriculture, which cannot fail to increase its value south of the Potomac.

We commend the volume to all those who wish to improve themselves in the science and art of cultivating a farm well and wisely.

.....

THE COLUMBIAN DRAWING BOOK, adapted from sketches of the first masters. By C. KERCHEL. With directions for the use of the student. By G. WHEELER. Hartford, 1849.

EVERY intelligent man who lives in the country, whether he is a lover of nature and art, and therefore desires to write down

fragments of her language of beauty, by means of what artists call drawing, or whether he is a mere creature of facts, and therefore finds it useful to know how to copy the plan of a house, or draw out the figure of a plough, must equally have felt many times in his life that the importance of being able to represent the figure and appearance of things by the process called drawing, is scarcely less valuable than that of representing words or ideas by the process called writing.

We are induced to recommend to such persons the use of such works as the present, by the aid of which, even without any teacher, and only with a little patience and industry, they may speedily be able to achieve the very desirable result of being able by a few strokes to perpetuate or produce all beautiful and useful forms at their own pleasure.

FOREIGN NOTICES.

[FROM late letters of our foreign correspondent, though not intended for publication, we venture to extract some passages referring to English places and English landscape gardening, which cannot fail to interest many of our readers. ED.]

Torquay, Devonshire, April 12, 1849.—I send you in this letter a vignette showing a front view of *Luscomb House*, belonging to the Hon. Mr. H——, which has pleased me as much as any place I have seen yet, as the best part of it has been made within fourteen years, and the trees and shrubs are therefore of an intelligible age to an American. * * * About fourteen years ago, was planted the “American garden,” (one of the most interesting features of this place,) which the late Mr. LONDON, the year before his death, said was the finest in England. The size of the trees in this garden is truly remarkable for their age. This portion, therefore, pleased me the most; but before describing it, I will go back a moment to the house. In the vignette you see about half of the house. In addition to the part upon the left, come the stables, and a beautiful dairy, all in connection. The house itself stands in a long, narrow valley, with a hill rising in

front, well planted with groups and masses of trees, and stretching away three hundred acres, either side, from the house. The hill-side, which rises immediately in the rear, is planted in a dense mass of *Rhododendrons*, for more than half a mile long, and about four hundred feet wide. (You may imagine the effect when in bloom.) Above this comes a strip of lawn, about the same length and twice the breadth of the *Rhododendron* bank, surrounded by gravel walks, and planted in clumps, masses and single trees, with every species of rare foreign and American evergreens. Above this again, a dense, picturesque hedge of holly, laurel and *Rhododendron*, shuts out the American garden from one of the park roads. All the sod was laid, and every tree and shrub planted in 1835, except one clump of nine cedars of Lebanon, planted in 1804,—the finest and most finished specimens, for their years, I have seen.

I will now mention the trees, or some of them, that you may compare them in growth with similar varieties, or in fact, any varieties planted in an equal number of years, in the United States. In the first place, the deciduous *Cypress*, and three or four *magnolias*, are the only deciduous

trees,—everything else being evergreen; consequently, this garden is as fine in winter as in summer. Passing by some immense masses of all our own, and the best English Rhododendrons—twelve or fourteen feet high—all our magnolias, laurels, azaleas, etc., the following plants struck me, and I noted them and their size down:

Rhododendron Smithii, twelve feet high, (one mass of bloom); and a very fine new white variety, equally gorgeous, eight feet.

Juniperus pendula, twelve feet, beautifully graceful.

Araucaria imbricata, thirteen feet,—said to be the finest specimen but one, in England.

Abies douglassii, twenty-five feet,—very fine.
—cephalonica, do. do.

Cedrus deodora, twenty feet,—beautiful.

Erica arborea, twelve feet,—in bloom.

Berberis asiatica, eight feet

Rhamnus latifolia, eight feet,—from the Azores.

Photinia serrulata, six feet,—China—beautiful.

Thea viridis, (green tea,) seven feet,—China.

Ligustrum lucidum, five feet.

Some of the above have only been planted about five years. These trees were all perfect in shape and colour, and most luxuriant in their growth.

Near the house, among other rare trees, were:

Quercus cervis, thirty feet.

—pedunculata, fourteen feet.

—ægilops, (from Greece,) nine feet.

At an angle of the porch, (in the vignette,) you will observe a plant; this is a double red camelia, which was in flower, and which, as well as the Thea viridis, or green tea of China, stands the mild winter of this part of England without the least protection. The larger tree beyond, near the next angle, with a drooping head, is a Deodar cedar, nineteen feet high,—not quite as long as the one in the American garden.

The lawns are mown and swept every week. The park is fed (i. e., the grass kept short,) by deer and sheep. Beyond, and behind the American garden, commence the farm lands, of some thirteen hundred acres, divided by iron fences and beautiful hedges, into lots of two, three, ten and fifteen acres, all in the most perfect order. All the farm roads are Macadamized, with raised gravel foot-paths on one side, and are over ten miles in length. All the gates are opened by one key, as also all the different park gates, where there are no lodges. The laborers' houses are charming; stowed away, every half mile or so, in some cozy recess of the park, or some snug little valley of the farm, and made picturesque by thatch, ivy, vines and rustic work. No muddy, poached cow-path leads from cottage to cottage, but a nicely gravelled and well edged path; and as you walk or drive by, the pretty, ruddy children, and their tidy, honest looking mother, come to the door to give you a curtsy or a bow.

The vegetable gardens, which lie some distance from the hall, consist of four acres, surrounded by a brick wall ten feet high, and divided by cross-

walks of brick into four other gardens, of one acre each. Nothing can exceed the order and keeping here. Along the walks of red gravel, (with a delicate little, pebbly, paved gutter on each side,) were pears and apples, root-pruned, and not over ten feet high,—but the walls were covered with very fine espaliers,—peach, plum, fig, apricot,* all in bloom, protected by nets, which were kept off from the blossom by iron hooks.

There were three vineries and two pineries. The vineries containing eighteen varieties of grapes, selected from one hundred sorts which had been tested. The gardener told me his favorite grapes were Black Hamburgh, Muscat of Alexandria, the three Frontignans, Black St. Peters, the Syrian, and the White Nice. The Syrian, when well grown, with sufficient heat, he thought one of the finest. The two last named sorts he grew to be eight pounds the cluster, and the Black Hamburgh to six pounds. He gets ripe grapes for eight months, and this year he anticipates having them for ten months.

These forcing-houses, gardens, lawn and American garden, with a small flower garden near the house, are kept up (and Luscomb House has the reputation of being the best kept place in England) by a gardener and four under-gardeners, with eight men every morning for two hours before breakfast;—the latter being afterwards sent into the plantations and farm.

I am glad to be able to add to this feature, that the owner of this fine seat is universally beloved here. All the surplus of the place, milk, fruit and vegetables, besides £10,000 or £12,000, (\$50, to \$60,000,) are annually given to the poor. Every one in distress comes to Luscomb House, and no one goes away without sympathy or relief.

Torquay is the wintering place of the English consumptives, instead of Italy, and it is a thousand times preferable in climate. The myrtle, oleander, geranium, fuchsia, &c., stand the winter here without protection.

From Luscomb we drove three miles to *Main-head*, the seat of Sir ROBERT NEWMAN, who expended from £80,000 to £90,000 upon his house! and whose park, for combination of land and sea view, with the river Exe, is unequalled in England. I have never, in all my experience in England, had my ideas of park scenery and park trees more entirely satisfied. From the front of the house, which stands on a terrace with a pretty flower garden on one side, you look over a rolling, undulating park, some six miles of glade, and hill, single trees and masses of wood, to the river Exe, and the sea. This park is filled with sheep and cattle, as the trees round the house are with *rooks*, who, regarding us perhaps as intruders from a rival country and republic, across the seas, kept up the most exaggerated *cawing*.

* Which were washed with a composition of lime potash, &c., and then re-washed with lamp black, to make their colour agreeable to the eye.

To an American, the rooks are, in their *domesticity*, a most novel and interesting sight, especially when *waddling* about in the park, among the sheep, and riding on their backs. Here, at Mainhead, the cawing of the rooks, and the bleating of the lambs, all over the hill-sides and valleys, fill the air with the most delightfully varied sounds.

The great features of this place, after the park, are the stables,—an immense pile of red stone, built in imitation of a castle in Cumberland, (which is in very bad taste. Ed.,) partly hid with ivy, and producing a wonderfully fine effect, and a most charming old church in the park, covered with ivy, and shaded on one side by a very fine cedar of Lebanon, and on the other by a yew, the trunk of which, at the base, is forty-eight feet in circumference!

Near, or rather in the rear of the house, is a hill, covered by magnificent cedars of Lebanon.

Chichester, Sussex, April 19, 1849.—My last to you was from Torquay, which we left on the 11th, and have since been to Teignmouth, Exmouth, and Exeter, where we managed to get outside places upon one of the few mail coaches left in England,—which, in the style and manner of the coachman, the perfection of the carriage, and the blood and grooming of the horses, quite equals, if it does not surpass, my expectations. We drove on this coach to Axminster, thirty-one miles, in two hours and forty-eight minutes,—changing three times. The coachman never once undoing his whip, which he carried with the lash in a long loop.

Axminster being forty miles from any rail, is now seldom visited, and comes among Howitt's Nooks and Corners of England. You can't imagine anything more *old-stage-coachy* than our inn, "The George," with its inn-yard, into which we drove; the kitchen, with its great settle before the fire, and its range of bright pewter pots; the chambers, as usual, redolent with *dimity*,—bed and window curtains, toilet, etc., *dimity, dimity*. When we walked through the town, there did not seem to be over 30 people in it,—the old men in small clothes,—the old women in their mob-caps; none under 80; no children; for all the people looked as if they were born old. Our tea at the old inn corresponded to our idea of its cleanliness. A snug little parlor, curtains drawn—a bright kettle hissing on a brighter fire—the nicest of muffins, and the most extraordinary of rump steaks!

The next morning we posted again to Dorchester, where, taking the rail, we returned to Southampton, passing through some 20 miles of the southern portion of the new forest, disturbing many herds of deer.

The succeeding day we took the steamer, and in one and a quarter hours we were at Cowes, where we lunched, and, taking post horses, we passed, on our route, Osborne House, the marine residence of Her Majesty,—not particularly inte-

resting, and in a very disturbed state, from the process of converting some 300 acres of farm land into park. Most of the plantations were made during the winter and this spring, and were, therefore, extremely like our *improvements* at home. Every single tree, and ever clump were protected by a circle of stakes, or wooden hurdles. And here let me remark, I have been very much surprised in England, at the smallness of the lawns. Even in many parks, several miles in circumference, the *mown* lawn is not really much larger than yours. I have seen many a mansion, the front of which would extend 150 or 200 feet, with the same sized lawn as yours. Outside of this comes a wire or hurdle fence, and then a park of 50, 100, or 1000 acres. All this park is kept short by deer, sheep and cows. The division between the park and the lawn, immediately around the house, is by an iron fence; but all the clumps, masses, undergrowth, and small trees, are invariably surrounded by wooden hurdles or palings—in some instances higher than the trees they enclose.

We made a circuit of the Isle of Wight, which is England in miniature, in four days,—visiting every town, and, I believe, every place. We passed many quaint old places; that which pleased us most was Northcourt, belonging to Sir WILLOUGHBY GORDON, a fine old mansion, built in the reign of James 1st, with the date 1615 on the shield over the door. It was built of gray stone, and is now much covered with moss and ivy. The house is in the pointed style, and stands upon a raised bowling-green, or terrace, of exquisite *turf*, which the old gardener, who had lived here 48 years, said he presumed had been laid the year the house was built, and never broken up since. It was mown once a week, and was nearly all a fine moss and grass—as fine as the hair of one's head.

On one side of the house are quaint old "hanging gardens," with walks or avenues of Yews, 210 years old, finely terraced, with gray stone balustrades, and also with some peculiar terraces of grass,—their corners *rounded* so as to permit the turf walk to go over them.

The gardens were only an acre and a half, walled, but filled with curious old espaliers of apples and pears. One of these trained trees—a Ribston Pippin—extended 56 feet, and was planted by the old gardener in 1800. This tree was only three feet high, trained with only three branches on each side, that almost met; so hard had they been *spurred*. The estate is 2000 acres; but the park only 15 acres,—with majestic oaks, running back up a hill till lost to sight. On one side of the house is the finest Larch I remember to have seen; and on the other, a Norway Spruce. The homeish little park, separated from the strip of lawn by the invariable wire fence, was alive with sheep and rooks. Take it all in all, the latter, from its size and snugness, pleased me hugely.

This afternoon we have been to *Goodwood*, the

Duke of RICHMOND's; a place that has disappointed me. The park is immensely large, but flat, and though admirably planted and wooded, yet it is terribly *poached*, and the woods are weedy and out of order. Immediately adjoining the house is a sort of *hay-scale*, and some of the plantations and offices are protected from cattle by the most seedy, post-and-single rail fence. The house is an immense pile of building, 378 ft. front; and the whole place, though the family were at home, indicated a carelessness which, in a place of its magnificence, and considering the wealth of the Duke, is unpardonable. From the house there were no views, except of extensive plains through large groups of oaks and beeches, and some fine Cedars of Lebanon. In the most distant parts of the park there are some fine views; but these parts are as wild as an American forest. The house is built of flint stones, about the size of your hand, and, at a little distance, the walls look as if built of oyster shells. Yours sincerely, H. W. S.

CULTURE OF DWARF CHERRIES.—The following notice of the culture of the cherry, as dwarf bushes on the Mahaleb, (*Cerasus Mahaleb*.) is from Rivers' Miniature Fruit Garden :

This stock has been long known in our shrubberies as the "Perfumed Cherry;" its wood, when burned, emits a most agreeable perfume. In France it is called "*Bois de St. Lucie*," and has been there used for dwarf cherries for very many years; why it has not been employed by English nurserymen I cannot tell. My attention was called to it in France, some ten or twelve years ago, since which I have used it extensively, annually increasing my culture. Its great recommendation is, that cherries, grafted on it, will flourish in soils unfavorable to them on the common cherry stock, such as strong white clay, or soils with a chalky subsoil. Although the trees grow most vigorously the first two or three seasons, yet after that period, and especially if root-pruned, they form dwarf, prolific bushes, so as easily to be covered with a net, or what is better, muslin, or bunting, which protects the fruit more effectually from birds and wasps, thus giving us, what is certainly most rare, cherries fully ripe, and prolonging their season till the end of September. The trees may also be protected from spring frosts by the same covering, or by woollen netting, which is preferable, as it admits air to them while in blossom. These dwarf bushes may be planted from five to six feet apart, and their branches pruned so that seven, or nine, or more, come out from the centre of the plant, like a well managed gooseberry bush. These branches will, in May or June, put forth, as in the horizontal shoots of pyramidal pears, several shoots at their extremities, all of which must be pinched off, to within three buds of their base, leaving the leading shoots untouched till the middle or end of August, when they must be shortened to eight, or ten buds.

The Heart Cherries, and Bigarreus, which are more vigorous, may be left a trifle longer than the Morello, or Duke Cherries, say twelve buds for the former, and eight for the latter: if, however, the space is confined in which they are planted, this length may be reduced; for, by root-pruning, the trees may be kept exceedingly dwarf. The end is to form the tree into a round bush, not too much crowded with shoots. Towards the end of September,* or, in fact, as soon as the autumnal rains have sufficiently penetrated the soil, a trench may be dug round the trees, exactly the same as recommended for root-pruning of pears, the spade introduced under the tree to cut all perpendicular roots, and all the spreading roots shortened with the knife, and brought to the surface, previously filling in the trench with some light friable soil for them to rest on, and spreading them regularly round the tree, as near to the surface as possible; then covering them with the soil (if not too tenacious,) that was taken out of the trench: no dung, or manure of any kind is required, as this stock seems to flourish in the poorest soils. Some short litter, or half decayed leaves, will however be of much benefit, placed on the surface round the stem.

I have thus far given their culture for small gardens; but those who have more space may dispense with root-pruning, and allow their cherry trees to make large bushes, which may be planted eight feet apart, and pinched regularly in the summer, and managed as directed for root-pruned trees.

I have a plant of the late Duke Cherry, now ten years old; it has never been root-pruned, and yet is a small prolific tree, five feet in height, and its branches the same in diameter. It will much facilitate the operation on their roots if the trees are placed on small mounds.

In forming plantations of dwarf cherries on the Mahaleb stock, it is necessary to arrange them with a little care. The three groups, those of the habit of the Morello tribe, the Bigarreau family, including the Heart Cherries, and those of the compact habit of the May Duke, should be planted in separate rows.

The following arrangement will assist the planter:

SECTION I.—THE MAY DUKE TRIBE.

Arch duke X	Belle de Choisy
May Duke X	Cerise Indulle, or Early May
Royal Duke X	Donna Maria
Jeffrey's Duke X	

SECTION II.—THE MORELLO TRIBE.

Carnation	Morello X
Carnation, Coe's Late X	Reine Hortense X
Kentish	Louis Philippe X
Late Duke X	Belle de Sceaux
Griotte de Chaux	Noir de prusse

* This early autumnal root-pruning will be found very advantageous. The flow of sap is checked, so that the shoots are well ripened and the pruned roots soon emit fresh fibres to feed the tree the following season.

SECTION III.

BIGARREAU AND HEART CHERRY TRIBE.

Baumann's May	Early Amber Heart
Belle d'Orleans X	Elton
Bigarreau de Hildersheim	Florence
Bigarreau gros Cœur X	Holland Bigarreau (Downing)
Bigarreau Napoleon X	Knight's Early Black X
Black Eagle X	Knight's Late ditto
Black Tartarian	Manning's Early White
Buttner's Black Heart	Tradescant's Black
Buttner's Yellow	Trempe Précoce
Downer's Late Red	Werder's Early Black Heart
Downton	

Cherries planted on the *Cerasus Mahaleb* are eminently adapted for espaliers, or for walls, as they occupy less space, and are much more fertile. They may be planted twelve feet apart, whereas espaliers on the cherry stock, require to be planted eighteen or twenty feet apart. To those, also, who have no walls or fences, and who wish to grow Morello cherries, the Morello on the *Mahaleb*, will be of great advantage; for the trees bear most abundantly, and form most ornamental little bushes. For potting, for forcing, cherries on this stock are highly eligible, as they do not gum, and are very prolific.

The following directions, as to the proper distance for planting pyramidal and other fruit trees, will be probably of use to the planter:

Pyramidal pear trees on quince stocks, root-pruned for small gardens, four feet apart.

The same in larger gardens, not root-pruned, six feet apart.

Pyramidal pear trees on the pear stock, root-pruned, six feet apart.

The same roots not pruned, eight to ten feet, the latter if the soil be very rich.

Horizontal espalier pear trees on the quince stock for rails or walls, fifteen feet apart.

Upright espaliers, on the quince stock for rails or walls, four to six feet apart.

Horizontal espaliers, on the pear stock for rails or walls, twenty to twenty-four feet apart.

Pyramidal plum trees, six feet apart.

Espalier plum trees, twenty feet apart.

Pyramidal apple trees on the paradise stock, root-pruned for small gardens, four feet apart.

The same roots, not pruned, six feet apart.

Espalier apple trees, on the paradise stock, fifteen feet apart.

The same on the crab stock, twenty to twenty-four feet apart.

Peaches and nectarines for walls, twenty feet apart.

Apricots for walls, twenty-four feet apart.

Cherries, as bushes on the *Mahaleb* stock, root-pruned for small gardens, four feet apart.

The same, roots not pruned, six feet apart.

Espalier cherry trees on the *Mahaleb*, for rails or walls, twelve to fifteen feet apart.

The same on the cherry stock, twenty feet apart.

Standard pear, apple, plum, and cherry trees, for orchards, twenty feet apart.

DOMESTIC NOTICES.

THE N. A. POMOLOGICAL CONVENTION.—Our readers will recollect our remarks relating to the anonymous circular, issued from Albany last winter, and appointing state committees to act for this association.

In a second circular, the matter of the former one is vouched for by a committee (of which Mr. NELSON, of Indiana, is chairman;) which committee claims to have been appointed at Buffalo, for the purpose referred to. Why a circular so important as the first alluded to, should have been published without the name of the chairman or any member of the committee by whom it was issued, we do not yet well understand, since it is always customary, when making appointments, to show some authority for so doing.

We most willingly accept the assurance of this committee that they were appointed at Buffalo, with full power to appoint state committees, etc., and should not have ventured a word of doubt on the subject, had they appended their names to the anonymous circular, as they were bound to do,—especially as a large portion of the gentlemen in different states appointed by them as members of the state committees, were not at Buffalo, and

did not know of the powers bestowed on such committee.

In justice to ourselves, we must be allowed however, to state two facts:—

1st. That by a perusal of the *Report* of the Buffalo Pomological Convention, it does not appear to us that a single officer of that body was appointed to hold office beyond the time of its adjournment; and that this committee referred to, was appointed "to take into consideration the propriety of holding future pomological conventions, and to report such plan of organization, if deemed advisable, as may be deemed necessary." The committee did so report before the Buffalo Convention adjourned, viz: 1st. "That hereafter an annual convention be held, under the name of the N. A. Pomological Convention; and 2d. That the recording secretary of the New-York State Agricultural Society be entrusted with the charge and solicited to give due notice of the time of meeting," etc.

2d. That at the New-York Pomological Convention, held subsequently, Dr. WENDELL, of Albany, (who was himself one of the members of the committee appointed at Buffalo,) with a sincere desire, as we believe, to unite the material

of two conventions into one national association, proposed the appointment of a special committee to consider the means of such an union; which proposition was adopted.

We were upon that committee, and as several members of it agreed with Dr. WENDELL regarding the advantage of such an union, the question was distinctly raised how we could confer with the Buffalo Convention for that purpose, as no permanent officers, committee or board of directors had been appointed by that body. Dr. WENDELL, as the members of that committee will all recollect, admitted that there was *no standing committee* of the Buffalo Convention in existence, with whom the New-York Convention could confer on the subject, and the union was therefore, with some regret, laid on the table as impracticable, until perhaps at the assemblage of the next Pomological Convention which was to be called by the recording secretary of the New-York State Ag. Society.

With this explanation we dismiss the subject, not without a word of surprise at the misinterpretation one or two of the western journals have put upon our remarks. Certainly no one can look with more satisfaction upon the success of pomological conventions—especially those of this state—than ourselves; but we cannot but maintain our opinions, both that the public interest can only be effectually promoted by *one national convention*, and that the CONGRESS OF FRUIT GROWERS (which first assembled, last October, in New-York,) is the only body whose organization and composition are such as to give it that national character.

In the mean time, we doubt not that a great deal of additional spirit will be elicited, for the moment, by the meetings of more than one pomological association; and we are not without hopes, that when the real objects which pomologists and fruit growers have at heart in this matter, are more fully and calmly considered, the union of the two associations may still be accomplished.

GOLD FISH IN THE HUDSON.—This beautiful fish a species of carp, originally from China, and hitherto chiefly known in ornamental ponds or glass globes in this country, has become quite naturalized in this part of the Hudson. The fishermen here have caught a great many fine plump and deep golden red specimens from eight to ten inches long, both in the Hudson itself and in the mouth of Matteawan creek, which empties into the Hudson, opposite Newburgh. We learn that a quantity of this species of fish was put into this creek, about ten years ago, by one of our correspondents residing there, J. W. KNEVELS, Esq., and they have now multiplied so largely as to have fairly stocked this part of the river.

Our neighbor, Captain HENRY ROBINSON, has made a similar experiment with the large Carp of Europe, which are now beginning to multiply,

and will soon be quite naturalized in the waters of the Hudson.

FINE COLLECTION OF HEATHS.—This most fairy-like and exquisite genus of plants is too little valued in this country, while thousands are spent upon Dahlias and Fuchsias. We are therefore induced to recommend amateurs of the *Erica*, in all its wonderfully varied forms, as well as those who wish to make its acquaintance, to call and inspect the collection of Mr. J. E. ROACH, a German exotic nurseryman who has established himself in Brooklyn, N. Y., about half a mile north of the Greenwood Cemetery. They cannot fail to be gratified with the great number of specimens which they will find there, and will be able to purchase plants, if they desire it, at the most moderate prices.

THE LADIES' SWEETING APPLE.—Until we published an account of this fruit, we believe it had only a local reputation,—confined to the banks of the Hudson. We are glad to learn that it having now become disseminated pretty extensively, fruit growers are becoming aware of its superior qualities, and that it is greatly sought after.

An apple that will keep in the *freshet* and most perfect manner, as well and as long as the Newtown Pippin, with a perfume on opening the barrel like that of a basket of roses; a juiciness and freshness certainly not surpassed in any other variety which is in eating in April or May; a saccharine flavor so delicate and agreeable that it is by far the finest of all sweet apples for the dessert,—if these are qualities which ought to commend a fruit to popular favor, then certainly the Ladies' Sweeting deserves to become a popular apple.

HARDY RASPBERRIES.—The past severe winter has brought complaints from all sides, of the want of a good, *hardy* and first-rate Raspberry,—the canes of the Antwerps, Fastolf, and most others, having been killed nearly to the ground.

If our amateur fruit growers or nurserymen of spirit, will take the trouble to sow *seeds* of the finest European varieties, they will no doubt succeed in obtaining new varieties equal in all other respects to the old sorts, with the advantage of being hardy in the climate where they are thus originated or *regenerated*. This is the only way to overcome the difficulty;—and now that Mr. BURR, of Ohio, has succeeded in producing such remarkably fine American seedling strawberries, there is great encouragement to make a trial with seedling raspberries.

BOTTLING INSECTS.—*Dear Sir:* You cannot too strongly recommend to your readers the advantages of hanging bottles, filled with a mixture of sweetened water and vinegar, in their fruit trees, at this season of the year. If wide-mouthed bottles can be had, it is all the better. I succeeded,

in this way, in keeping down the insects surprisingly on my own grounds last season,—catching them so fast, that I was obliged to empty the bottles weekly: the insects accumulated in them rapidly. The bottles should only be filled half full of the liquid. Yours, *A Novice. New Haven, May 8, 1849.*

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[We have received the following graceful and touching "*Singing Bird's Petition to the Sportsman*," from some young incognita at Philadelphia:]

Wouldst thou have me fall or fly?
Hear me sing, or see me die?
If thy heart is cold and dull,
Knowing nothing beautiful—
If thy proud eye never glows
With the light love only knows—
If the loss of friend or home,
Ne'er hath made life wearisome—
If thy cheek has never known
Tears that fall with sorrow's moan—
If a hopeless mother's sigh
Brings no tear-drop to thine eye.
Thou mayst smile to see me die!

But, if thou canst love the lay,
Welcoming the birth of May—
Or summer's song, or autumn's dirge,
Cheering winter's dreary verge—
If thou lovest beauty's hues,
Decked with light, or gemmed with dews—
If, all manner thoughts above,
Thou canst hope, and trust, and love—
If, from all dishonor free,
Thou canst Nature's lover be,—
Spare her minstrel,—pity me!

M.

Philadelphia, May, 1849.

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PROTECTING FRUIT TREES.—*A. J. Downing, Esq.:* During the nights of the 15th and 16th of April, the thermometer, at this place, fell to 27°. Having a number of pear trees on quince stocks of such small size that they could be covered or nearly so, with a sheet, and they being then in full blossom, I determined to try to save the fruit by that means, but as there was a light breeze blowing I feared that the flapping of the sheets upon the blossoms might do more harm than the frost; however, I covered part of them and part of those which were left uncovered were syringed with cold water before sunrise the next morning, it being then so cold that the water was immediately converted into a coat of ice on the trees. As the fruit is now fully set, I have just been making the following memorandums which I have thought might prove of interest to some of your readers:

Duchess D'Angouleme.—Two trees, with ten or twelve clusters of blossoms each. One was covered by a sheet and the blossoms were uninjured, except a few on the windward side which the sheet rubbed against. The other was uncovered, and the blossoms were all killed.

St. Michael Archangel.—Two trees, about eight feet high, and both completely covered with blossoms. One was unprotected, but was syringed before sunrise, and every blossom was killed. The other was covered with a sheet and all the

blossoms saved, except such as were rubbed by the sheet.

Louise Bonne de Jersey.—One tree, very full of bloom, was covered with a sheet and all saved.

Beurre Diel.—One tree, uncovered; a few blossoms were saved.

Napoleon.—Six trees, all very full of blossoms, of which four were covered, and nearly all the fruit saved on every one,—one was syringed and one left untouched and both lost all their fruit.

William's Bon Chretien.—Two trees, both entirely unprotected and quite full of bloom, but not as far advanced as the others, and both escaped unhurt.

Easter Beurre.—Two trees, both uncovered, but one of them was syringed, and all the fruit was saved on each.

All the above were on quince stocks. On pear stocks I had no trees that were not too large to be easily covered, but made the following memorandums:

Bloodgood.—One tree—literally covered with blossoms, and every one killed.

St. Ghislain.—One tree—very full of blossoms, almost all of which have set fruit.

Easter Buerre.—One tree—ten or twelve bunches of blossoms unhurt.

White Doyenne.—One tree—very full of blossoms and unhurt.

I think there is sufficient evidence of the advantage of protection, and also, that some kinds require protection much more than others. With dwarf trees, I cannot but think, it would be worth while, certainly for those who have only a few trees, to have tents made of some light stuff which could be stretched over the trees on such nights as the above named, and fastened in such a way as to protect their rubbing against the blossoms. Very truly yours, *H. W. S. Cleveland. Oatlands, Burlington, N. J., May 16, 1849.*

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DEAR SIR.—Our experience of last winter has disproved the opinion of a writer, in your paper, or the *Cultivator*, that peach blossoms are always killed, when the thermometer is 14° below zero. We have had the coldest winter ever known here, and our peach, and all other fruit trees, are in full bloom. On the prairies, from half to two-thirds of the peach blossom buds were killed; but we shall have a fair crop, if no more frost falls. The trees protected by our bluffs will have as much fruit as they can hold. For days, during the winter, the thermometer was 20° below zero; the preservation of our trees, was probably owing to deep snows, and uniform cold weather. Yours truly, *James Grant. Davenport, Iowa, May, 1849.*

[We fear that when the blossoms have fallen, and the young fruit begins to swell, our correspondent will find the promise of fruit less than he now anticipates. We entertained similar views this year, when the peach and cherry blossoms expanded, but we now think, that the crop of fruit

generally, owing to the unusual severity of the past winter, will be lighter than it has been since 1836.—ED.]

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WINTERING VERBENAS.—Many of your readers, who, like me, have no green house, have also, doubtless, been puzzled to keep young plants sufficient for "bedding out" the next season, as cuttings or young plants taken off in autumn are very apt to die off.

I succeed admirably in this way. I preserve one plant in the spring and plant it in a moderately large pot, sinking the pot in the ground in a sunny open aspect. I train the trailing shoots of this plant up the twigs of a branch of a tree, from one to two feet high, which I stick in the pot for this purpose. About the 1st of September, I lift the pot out of the ground, and gradually withhold its supply of water, in order to check its growth, so as to ripen the young shoots as much as possible. I then carry it in doors at the approach of hard frost, and find no more difficulty in keeping it through the winter (minding to water it as little as I dare,) than any other plant. As soon as the spring opens I plant cuttings from this mother plant, which strike very freely at this season, so that from one plant I have raised thirty or more this spring, all fit for planting out in the borders now. Yours,—*An Amateur Florist. New-York, May, 1849.*

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THE MISLETOE.—It appears strange that a genus of plants having so wide a geographical distribution as the Mistletoe family, is so little known except to Botanists, or that the Mistletoe itself is so little cultivated on ornamental trees in our lawns and pleasure grounds. This curious parasite deserves our attention for many reasons, but more especially for the historical recollections it brings to mind, as well as the rich poetical and legendary allusions concerning it. The Mistletoe when found on the oak was consecrated, and held in the greatest veneration by the Druids in Britain, and from time immemorial to the present, mistletoe boughs have been cut and hung over the hall-door on Christmas eve, in England. Yet, notwithstanding all the attention paid it, it appears strange that so few efforts have been made to transfer it from its native wilderness to localities where it is unknown, and that many of the most experienced plant cultivators are not very successful in cultivating it. The cause of so few attempts to cultivate it artificially, might be justly attributed to the failures arising from the modes adopted being unsuited to its parasitical nature. Indeed so difficult did it appear to ancient and modern naturalists that they imagined the seeds required to be passed through the stomachs of the birds that feed on them, in order to undergo some chemical change preparatory to germination. The Thrush family are among the principal agents for disseminating it in England, particularly the large species, *T. viscivorus*,

which takes its specific name from feeding so much on the seeds; although the mistletoe is a true parasite, deriving its nourishment from other plants, it has been proved that its seed will germinate on many kinds of substances where a sufficient degree of moisture is maintained; for instance, on wood, (whether living or dead,) stones, glass, and even iron. M. DU TROCKET has caused it to germinate on a cannon ball. In this case the embryo finds the first materials of its growth in the viscid substance that covers the seed. Although the seeds germinate on those materials, the plants will perish on all, except the living wood, as soon as the food in the pericarp will be exhausted from those experiments. From the nature of the plant itself, as well as from the habit of the birds that feed upon them, I might safely suggest, that the growing of good mistletoe plants from seeds, is one of the simplest things imaginable, if properly managed. The viscous nature of the seed causes it to adhere to the beak of birds, and in order to get rid of them they occasionally rub it against the tree, thereby leaving some of the seeds fixed to the spot, where they stick fast and vegetate; they also, when ripe, drop from the plant, and in their descent sometimes come in contact with other branches; the viscous matter causes them to adhere in like manner till they germinate. From this, their natural disposition, I can but infer, that means as similar as possible are to be used to grow the seeds artificially, and not by placing them in the chinks of trees, nor by boring holes, nor tying them on with moss, or by raising the bark in the spring and inserting the seed, as is detailed in the *Encyclopædia of Plants*, all of which methods are occasionally resorted to, and to which I can add but little.

When the seeds are ripe, in the fall, take well ripened plump seeds, and place them gently on the smoothest and healthiest part of the tree, to which they will readily adhere, and on withdrawing the finger and thumb, the viscous matter already alluded to will stick to them and permit of being drawn out to the fineness of a thread, which should be taken over the seed as often as possible, in various directions, allowing it to touch the bark each time it crosses the seed, and thus binding down the seed with its own substance, which soon becomes dry, and fixes the seed finally to the bark till germination takes place; this will be in about two months after the seeds are put on. If the seeds are left to remain for any considerable time the mucilaginous substance loses its adhesiveness, and consequently will not stick for any length of time. This is the only point of importance now gained, stating precisely as I have done, how the seeds are to be fixed on the tree, and which I know to have proved successful with my respected friend DAVID MOORE, Esq., Curator of the Royal Dublin Society Botanic Garden, Ireland, with whom this system originated. I have no doubt any person carefully trying the above method will succeed. It is, however, to be

observed, that much of the success depends on getting the seeds as fresh as possible. Having already remarked that germination takes place in about two months after the seeds are put on the tree, which is readily known by the roots, frequently two horn-like processes (resembling the horns of the common garden snail,) rising from the opposite side of the seed, they first shoot out nearly straight, and after some time recurve back till their extremities touch the bark in opposite directions, (providing two radicles have been emitted.) They remain in this position for the first year, bent like a bow, with one end fastened to the seed and the other to the bark. The second year the seeds rise from the bark when the cotyledons or seed leaves belonging to each radicle separate, and each becomes a separate plant, whether there be two or three as sometimes occur.

At this stage, the plants are to be considered fairly established, but do not make much growth till the third year, when they grow rapidly.

A still more successful, and readier mode than growing from seed, has been lately discovered: that of propagating it by *grafting*;—an operation which modern physiologists might have supposed almost impossible. It is supposed that a union is not formed by the wood of the mistletoe and the stock, as is usual with other trees; but that the grafts absorb their nourishment from the moisture the albumen the plant affords, as well as the atmospheric air, similar to the branches of other plants, while undergoing the process of rooting by cutting. May is thought to be the best time for the operation.

Another method is, to cut the young shoots on which the seeds have germinated, and grafting them on stocks of the same kind;—which operation the plants are said to undergo without being much affected.

Mr. MOORE says the best trees to graft it upon are the apple, pear, poplar and willow; and for seeds, these are also its favorites. But it will grow on most kinds of hardy trees.

It is occasionally found on the pine and cedar, in this country; and a writer in the March number of the Horticulturist, says it grows in South Carolina on the persimon, honey locust, and oaks of all kinds. I am, sir, respectfully yours, *M. C. Newburgh. May, 1849.*

P. S. I take the opportunity of correcting some errors that occurred in my letter on *Orchidaceæ*:

Page 348, for European, read foreign. Page 349, for Drymosa, read Drymoda. Page 343, for tumble, read jumble. Page 443, for 3 o'clock, read 7 o'clock. Page 490, for Eucas, read Erias.

M. C.

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ANSWERS TO CORRESPONDENTS.

QUINCES.—*Chas. G. Greene*, (Boston.) Plant your quinces in good soil, well trenched, dry, and highly manured. For the rest, see the excellent article p. 63, Vol. II., of this journal.

RAPID CLIMBERS.—*An Old Subscriber*, (Philadelphia.) Plant *Cobea scandens* and the Balsam Pea vine immediately. They will run twenty feet in a season.

DWARF APPLES.—*E. N. R.*, (N. A. Phalanx, N. J.) The apple may be kept down to a tree twelve feet high, by root-pruning. We will endeavor to give some further remarks regarding it in our next.

ROSE SLUGS.—*W. Bishop*, (N. Y.) Use tobacco water, sprinkling it copiously on the under side of the leaves, with a syringe, after sun-set, and washing off the leaves by sprinkling them with a water pot the next morning.

APPLES.—*An Enquirer*, (Springfield.) The Mother Apple is a fruit of the finest quality, and a native of New-England. You will certainly be able to get it of Mr. COLTON, nurseryman at Worcester.—*B.*, (Columbus, Ohio.) Mr. ERNST, of Cincinnati, has investigated the history of the *White Bellefleur* apple, and has given us a paper on this subject, which we will publish soon.

LAWNS.—*A. R. S.* (Boston.) The fine fragrance from particular meadows, is afforded by the *sweet vernal grass*. Seed of it may be had at THORBURN'S, or any of the leading seedsmen, and a small proportion mixed with other grass seed in sowing a lawn, will secure this delightful fragrance every time the grass is cut. You must not only mow, but *roll* your lawn, frequently—especially after rain—to secure the close texture you desire.

EVERBLOOMING ROSES.—*An Amateur*, (Albany.) You do not succeed with your roses, because as soon as the roots get into the cold, clayey sub-soil, the plants cease growing. You must prepare your beds next spring, by digging them two feet deep—filling the bottom, six inches, with stones, and the rest with good, rich soil; then replant them, and they will flourish well.

PYRAMIDAL PEAR TREE.—*James W. Grimes*, (Burlington, Iowa.) We shall give a very complete article on pruning and training Pear trees in this form, with illustrations, in our next number.

ENGLISH BLACK MULBERRY.—*S. Williams*, (Newark.) This is a scarce tree in this country, and rarely succeeds well, though we have seen very fine fruit grown on the Hudson. It does not appear to suit the climate. Seedlings should be raised from it, to get more hardy varieties.

CROSSING GRAPES.—*Experimentalist*. Cut out the stamens as soon as the blossom of the native grape opens, with a pair of small scissors; then bring the pollen from blossoms of the Black Hamburgh, or other foreign sort, and dust it over the stigma with a camel's hair brush. A bit of milinet should be tied over the blossom till the fruit sets, to prevent access of bees.

TRAINED CURRANTS.—*N. R. S.* No plant is more easily trained, and none more improved in its fruit by the process, than this. A trellis three feet high is sufficient, and it may be placed in any aspect.

MASSACHUSETTS HORTICULTURAL SOCIETY.

BUSINESS MEETINGS.

April 21, 1849.—President SAMUEL WALKER in the chair. A communication was received from GEORGE B. JONES, Esq., of Boston, accompanied with an elegant Chinese vase, as a gift to the Society, and it was voted that the thanks of the Society be presented to Mr. JONES for his liberal donation.

Scions of new varieties of fruit were received from L. P. GROSVENOR, Esq., of Pomfret, Mass., and J. M. EARLE, Esq., of Worcester, Mass.; and it was voted that the thanks of the Society be presented to Messrs. Grosvenor and Earle, and the scions placed in the hands of the Committee on Fruit, for distribution among the members of the Society.

April 28, 1849.—The President in the chair. A communication was read from L. P. GROSVENOR, Esq., accompanied with specimens of a new seedling apple. Voted, that the thanks of the Society be presented to Mr. Grosvenor, and the fruit placed in the hands of the Committee on Fruit for examination. Also voted, that the letter of Mr. Grosvenor, together with an engraving of the fruit, be published in "Hovey's Magazine of Horticulture."

The grafts of a new variety of apple were received from SAM'L J. GUSTIN, Esq., of Newark, N. J., and the thanks of the Society were voted to Mr. Gustin, and the grafts placed in the hands of the Committee on Fruit for distribution.

May 12, 1849.—The President in the chair. A vacancy having occurred in the Committee on Flowers, it was voted that Parker Barnes be appointed to fill such vacancy.

HON. BENJ. V. FRENCH made a report in behalf of the committee appointed last January, to procure and present a PIECE OF PLATE to Col. WILDER, late President of the Society; that the duty had been performed by presenting to him, with the copy of resolutions passed at that time, a massive silver pitcher, highly wrought, and chased with fruits, flowers, foliage, &c., manufactured by Jones, Ball & Poor, in their best style; and upon which the committee had caused to be engraved the following inscription:

HON. MARSHALL P. WILDER,

PRESIDENT OF THE MASSACHUSETTS HORTICULTURAL SOCIETY,

From A. D 1841 to 1849

This Piece of Plate is presented by the Society, as a Testimonial of Respect and Appreciation of his valuable services during the above period.

JANUARY, 1849.

Mr. French also submitted the following correspondence:

Boston, May 1, 1849.

Hon. MARSHALL P. WILDER.—Dear Sir: At a meeting of the Massachusetts Horticultural Society, held in their Library room, Jan. 6, 1849, the following resolutions were passed:

[Here follow the resolutions that we published at the time.]

And, now sir, in compliance with the above resolutions, we present for your acceptance a Silver Pitcher, which we request you to receive as a token of esteem for the zeal and success with which you have served in the cause of Horticulture, and Floriculture, while a member of the Society, and more particularly while acting as President, during the term of eight years.

With sincere wishes for your continued usefulness, health, and prosperity, we are, sir, most respectfully, your friends,

BENJ. V. FRENCH,
CHEEVER NEWHALL,
JOSEPH S. CABOT.

Boston, May 10, 1849.

To the Hon. BENJ. V. FRENCH, CHEEVER NEWHALL, Esq., and Hon. JOSEPH S. CABOT, Committee.

Gentlemen: The splendid testimonial which accompanied your esteemed favor of the 10th instant, has been received; also a copy of the resolutions passed by the Massachusetts Horticultural Society, on the occasion of my retiring from its Presidency.

I accept of this rich and beautiful gift, with lively emotions of gratitude; not for its intrinsic value, but as an enduring memorial of the confidence and respect so uniformly extended to me, during the many years of my administration.

I gratefully acknowledge the kind manner with which you have performed the duty assigned to the committee. Permit me also to tender through you, to the members of the Society, my sincere thanks for this substantial manifestation of their approbation, and to assure them, that I shall ever regard it as a lasting record of relations, which to me, have been both pleasant and honorable.

The high appreciation of my humble services, which you have caused to be inscribed on the bright tablet of this elegant present, will excite renewed interest for the welfare and fame of our noble institution; and I doubt not, that long after we have passed from this earthly scene, it will be preserved by my descendants as a valuable memento of a society from which I have received distinguished favors, and of endeared friends, with whom I have ever felt it an honor to have my name associated.

Please accept for yourselves, gentlemen, my most grateful thanks, and for the Society, the assurance of my highest regard.

MARSHALL P. WILDER.

WEEKLY EXHIBITIONS.

Saturday, May 12, 1849.

FLOWERS.—From S. Walker, President of the Society, a variety of cut flowers, amongst which were Pansies, Fritillarias, Anemones, Pæonia tenuifolia, &c., &c.

From Marshall P. Wilder, Epacris pulchella, Erica ventricosa alba, do do Cavendishii, do do breviflora, do do superba, do do hirsuta, Erica ovata; Camellias—Queen Victoria, Caroline Smith, and Henry Favre, Azalea indica, Gladstonesii, and three seedlings; Cereus Jenkinsonii, Rhododendron catawbiensis, and R. catawbiensis hybridum. A fine collection of cut Rose flowers, of the following kinds; Solfaterra, Safrano, Dupetit Thouars, Lamarque, Chromatella, &c., &c. The above collection was very beautiful, and all first rate specimens.

From N. J. Becar, Brooklyn, L. I., a beautiful collection of Calceolarias, thought to be much superior to any before exhibited.

From Azel Bowditch, Laure Davoust, and Queen of the Prairie Roses, four varieties of Antirrhinum majus, White Ivy-leaved Geranium, White Moss Rose, Calystegia pubescens; Cactus, var., Nemo-phila insignis, Veronica Lindleyana, Cytisus formosus, eighteen varieties of Calceolarias, and four bouquets.

From G. C. Crowninshield, by John Quant, *Erica altheaeflora*, *Azalea variegata*, *Abutilon striatum*, *Anigozanthus coccinea*, *Tropæolum tricolorum*, *Mahonia odorata*, *Cactus Jenkinsonii*, *Mimulus rivularis*, *Crinum amabile*, *Hydrangea chinensis*, and the following *Pelargonium*s: *Celestial*, Dutchess of Sutherland, Prince Albert, Orange perfection, Unity, Lady Villars, Wilson's Superb, Jenny Lind, Ananus, Fair Mary Devon, and two varieties, names lost.

From James Nugent, the following varieties of *Pelargoniums*, which were much the best collection and finest flowers exhibited, but being cut from the plants, were not entitled to the Society's premium: Nestor, Jenny Lind, Fair Maid of Devon, Queen Phillippi, Celestial, Unit, Garth's Perfection, Diadimatum, Dutchess of Sutherland, Belladonna, Beauty Supreme, and three seedlings; also four varieties of *Calceolarias*, *Fyrus Japonica*, *Gladiolus gandivensis*, Pansies, White Phlox Drummondii, *Ageratum odoratum*, Sweet peas, and *Bignonia earium*; Roses—Prince Albert, Clara Sylvain, White Tea, Yellow Tea, Bougere, Buret, and Blush Tea, one round table bouquet.

From J. Breck & Co., a very large and superior collection of *Hyacinths*, and the following cut flowers: *Pulmonaria Virginica*, *Fritillarias*, Pansies, &c., &c.

From R. M. Copeland, a fine collection of *Hyacinths*; colors of the flowers very delicate and perfect.

From Orr N. Town, *Oncidium flexuosum*.

From Dr. D. Osgood, fine specimen flowers of Cape Jasmine.

From John Kenrick, *Magnolia conspicua*, and *pyrus japonica*.

From W. Ashby, Newburyport, a collection of Pansies.

A collection of Green House Plants from Hovey & Co. D. HAGGERSTON, Chairman.

PREMIUMS awarded for Flowers and Plants, May 12, 1849.

Pelargoniums, 1st class—For the best six new varieties, by John Quant, \$6.

2d Class—For the best six varieties in large pots, John Quant, \$6.

Cut Flowers—For the best display, James Nugent, \$3.

Cactus—For the best 6 varieties, Hovey & Co., \$3.

Calceolarias—For the best six varieties, A. Bowditch, \$3. 2d best do., John Quant, \$2.

Heaths—For best 6 varieties, M. P. Wilder, \$3.

For the best display of various sorts of green-house plants, M. P. Wilder, \$8. 2d best do., Hovey & Co., \$5.

Hyacinths—For the best display, J. Breck & Co., \$5. 2d best, do., R. M. Copeland, \$3.

For Round Table bouquet, James Nugent, \$1.

For hand bouquets, A. Bowditch, \$1.

GRATUITIES.—To N. J. Becar, for fine display of *Calceolarias*, the Society's Silver Medal.

To A. Bowditch, for show of green-house plants, \$2. To John Quant, do.

To M. P. Wilder, for show of Cut Roses, \$5.

To James Nugent, for show of Cut Roses, \$2.

To Hovey & Co., for fine specimen plants of double Purple and White China Primrose, \$3.

FRUITS.—From Hovey & Co., strawberries, var., Aberdeen Bee-hive. Messrs. Hovey & Co. have had vines of this kind fully exposed during the past severe winter, and the plants have come out in the finest condition; while plants of our native seedlings, in adjacent beds, have been entirely destroyed.

From J. Fisk Allen, Grapes—Early Black July, Chasselas, Bar Sur-aube, Pitmaston White Cluster, White Early, of the French, Gros Noir de Lorraine; Chasselas de Fontainbleau, Black Ham-burgh, Grisly Frontignan, Ferrol; Figs, Black of St. Michael. EBEN WIGHT.

VEGETABLES.—May 5. From H. B. Crooker, by Thomas Needham, brace or Barne's Man of Kent; brace of Weedon Cucumbers.

From G. C. Crowninshield, by John Quant, brace of Allen's Victory Cucumbers.

May 12. From Orr N. Town, two brace of very fine Cucumbers.

From W. W. Wheildon, by Peter Naylor, Early Frame Cucumber.

From H. B. Crooker, by Thomas Needham, brace of Barne's Man of Kent; brace of Weedon Cucumbers. A. D. WILLIAMS, Jr., Chairman.

PENNSYLVANIA HORTICULTURAL SOCIETY.

The stated meeting of this Society was held on Tuesday evening, May 15, 1849. The President in the chair. The exhibition on this occasion was very handsome, and exceeded expectations, and as usual, the hall was thronged with the beauty and fashion of the city. In the numerous collections of plants, as objects of interest might be noticed, a specimen of *Azalea*, variegated in perfection, presenting one mass of the richest flowers, from Peter Mackenzie's green-house. *Campanula nobilis*, very appropriately named, being truly a noble specimen, from whose branches pended so gracefully its innumerable large, bell-shaped flowers; this species is of recent introduction into Europe from the East Indies, through the exertions of that indefatigable collector, Mr. Fortune, and was shown by Mr. Buist, who also exhibited *Fuchsia gigantea*, and *F. coronet*,—handsome plants of those choice varieties; a fine collection of *Pelargonias* and *Cinerarias*. Mr. Dundas' gardener exhibited several most beautiful specimens of *Azalea*, variegated, a *Clematis seiboldii* and *Pelargonias*. From the President's fine collection were observed several air plants—*Maxillaria aromatica*, *M. crispa*, *M. p.*, and *Gongora purpurea*, *Achimenes picta*,

Cacti, *Pelargonias* and *Cinerarias*. From John Lamberts, a fine, large plant of *Leptospermum scoparium*, in flower, *Metrosideros semperflorens*, *Lantana mutabilis*, with many others. And by Miss Gratz' gardener, a table of *Pelargonias* *Mathiolaræ*, and choice Roses. By John Sherwood, remarkably fine Roses, by Wm. Hall; also of choice varieties by Robert Kilvington, interesting indigenous plants; *Dodecatheon Meadia*, large specimens, *Orchis spectabilis*, *Procera filiformis*, etc. The beautiful designs baskets of cut flowers and bouquets, by the President's gardener, Mr. Dundas, John Lamberts, and Robert Kilvington, added greatly to the attractions of the exhibition.

OF FRUIT, Henry N. Johnson, of Germantown, exhibited a dish of very large Lemons.

OF VEGETABLES there was a profusion of the finest sorts. Cauliflowers of large size, from Pierce Bulter's and Chas. Chauncey's garden. A specimen of *Asparagus*, of great weight, by Wm. Lutz, Kingssessing; many fine specimens of *Rhubarb*, *Mushrooms*, *Cucumbers*, etc., were shown.

REPORTS OF COMMITTEES.

The committee on plants and flowers, report the following premiums:

Camellias. For the best American seedling during the season, to Peter Mackenzie.

Pelargoniums. For the best ten named varieties, to P. Gallagher, gardener to Miss Gratz.

For the second best do., to Ben. Daniels, gardener to Caleb Cope.

Roses—Perpetual. For the best six named varieties, in pots, to Wm. Hall.

For the second best do. do., to John Sherwood.

Tulips. For the best single twelve named varieties, to Matthew Mills.

For the second best do. do., to Jonathan Bass.

Cinerarias. For the best four named varieties in pots, to Robert Buist.

For the second best do. do., to Ben Daniels.

Hot-house Plants. For the best three named varieties, to Ben Daniels.

Green-house Plants. For the best three named varieties, to Robert Buist.

For the second best do., to Ben Daniels.

Indigenous Plants. For the best display in pots, to Robert Kilvington.

Plants in Pots. For the best collection, to Maurice Finn, gardener to Jno. Lambert.

For the second best do., to Ben Daniels, gardener to C. Cope.

For the third best do., to P. Gallagher, gardener to Miss Gratz.

Designs of Cut Flowers. For the best, to Ben Daniels, gardener to C. Cope.

Of indigenous, for the best, to Robert Kilvington.

Basket of Cut Flowers. For the best, to Maurice Finn, gardener to Jno. Lambert.

For the second best, to Ben Daniels.

The committee were highly gratified with a beautiful *Azalea variegata*, shown by Mr. Mackenzie, and much pleased with the extent of the display generally.

The Committee on Fruits report that the only fruits exhibited this evening, are a dish of very fine Lemons, by Henry N. Johnson, for which they award a special premium of one dollar, and a melon from the President's green-house, of the Ionian variety.

The Committee on Vegetables report that they have awarded the following premiums:

Cucumbers. For the best four, to Ben Daniels, gardener to Caleb Cope.

For the second best do., to Jas. Leddy, gardener to P. Butler.

Rhubarb. For the best twelve stalks, to Samuel Cooper.

For the second best do., to Robert Dunk.

Peas. For the best half a peck, to Ben Daniels.

Potatoes. For the best fourth of a peck, to Jas. McKee, gardener to C. Chauncey.

For the second best do., of a different variety, to the same.

Vegetables. For the best display, by market gardeners, to Anthony Felten.

Nor the second best, do. do., to Anthony Felten.

For the best display by amateurs, to Pat. Gallagher, gardener to Miss Gratz.

For the second best do., to Ben Daniels.

For the third best do., to Wm. Johns.

The Committee also award the following special premiums: For Asparagus, very fine, to Wm. Lutz, of \$1; for Sea Kale, very fine, to John Sherwood, \$1; for Cauliflowers, very fine, to Jas. Leddy, gardener to Pierce Butler, of one dollar; for Cauliflowers, to James McKee, gardener to C. Chauncey, one dollar.

Members Elected. Hon. John K. Kane, Alexan-

der Brown, John Dickson, P. S. Justice, John King, and James Bisset, Jr.

The objects exhibited consisted of

Plants. By Peter Mackenzie, a beautiful specimen of *Azalea*, variegated, who also exhibited to the committee since the last meeting, two very fine seedling *Camellias*.

By Robert Buist, *Campanula nobilis*, *Fuchsia coronet*, *F. gigantea*, *Cupea platycentra*, *Antirrhinum luteum*, 12 *Tulips*, 10 *Pelargonias*, and 8 *cinerarias*.

By Ben Daniels, gardener to Caleb Cope, from Springbrook Farm, *Pelargonias*, 10 varieties. *Fuchsias*, var. *Napoleon*, *exoniensis*, *mirabilis*, *Sir H. Pottinger*, *Chauverii* and *delicata*, *Cinerarias*, *Maxillaria aromatica*, *M. crispa*, *M. sp.*, *Gongora purpurea*, *Achimenes picta*, *Russellia juncea*, *Mammillaria scopia*, *Echinocactus ottonis*, *Cereus spinuosus*, *Clerodendrum squamatum*, *Cuphea platycentra*, *Sempervivum urbium*, *Swainsonia galegifolia*, *Camellia myrtifolia*, *Asclepias curassavica*, *Mimulus Smithii*, *Mahernia odorata*, etc.

By James Bisset, gardener to James Dundas, six *Azalea variegata*, *Clematis Seiboldii*, and *Pelargonias*.

By Maurice Finn, gardener to John Lambert, *Leptospermum scoparium*, *Metrosideros semperflorens*, *Pentas carnea*, *Lantana mutabilis*, *Ardisia crenulata*, *Begonia hydrocotylefolia*, *Cardenia radicans*, *Gloxinia alba*, *G. speciosa*, *Asclepias curassavica*, *Calceolaria*, *Azalea*, *Cineraria*, *Streptocarpus Rexii*, *Tropaeolum perigrinum*, etc., etc.

By P. Gallagher, gardener to Miss Gratz, *Pelargonias*, *Mathiola*, *Roses*, *Calceolaria*, etc., etc.

By John Sherwood, 12 choice *Perpetual Roses*.

He also exhibited a seedling *Camellia* to the committee since the last meeting, a white variety of merit.

By Wm. Hall, 12 varieties of *Roses*.

By Robert Kilvington—*Indigenous*—Two fine *Dodecatheon Meadia*, *Viola cucullata*, *V. p. datta*, *Orchis spectabilis*, *Krigeria Virginica*, *Saxifraga Pennsylvanica*, *Drosera filiformis*, *Proserpinaca pectinacea*, etc.

By Jonathan Bass, choice *Tulips*.

By Matthew Mills, fine varieties of *Tulips*.

Designs, baskets, and bouquets, by Ben Daniels, James Bisset, Maurice Finn, and Robert Kilvington.

Fruit.—By Henry N. Johnson, a dish of very fine Lemons.

Vegetables.—By Anthony Felton, two very fine tables.

By Ben Daniels, gardener to C. Cope, Cuthberts, black spined, Lyon-house and Marshall Cucumbers, Cauliflowers, Peas, Mushrooms, Peppers, Potatoes, Lettuce, Radishes, Spinach, Cabbage, etc.

By P. Gallagher, gardener to Miss Gratz, a fine collection.

By James Leddy, gardener to Pierce Butler, Cauliflowers and Cucumbers.

By James McKee, gardener to Chas. Chauncey, Cauliflowers, Cucumbers, Potatoes, etc.

By Wm. Lutz, very superior Asparagus.

By Wm. Johns, a good variety do.

By Robert Dunk, fine Rhubarb and Asparagus.

By Samuel Cooper, superior Rhubarb.

By Wm. Hobson, Rhubarb.

By John Sherwood, Sea Kale, fine.

By Maurice Finn, gardener to John Lambert, an excellent display.

On motion, adjourned.

THO. P. JAMES, Recording Sec'y.

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